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A COMPARATIVE ANALYSIS OF THE INFLUENCE OF BUSINESS
ENVIRONMENT FACTORS ON DECISION MAKING IN VARIOUS
INDUSTRIAL SECTIONS WITH EMPHASIS ON
TOURISM AND SMALL BUSINESSES

presented by

Yonghee Park

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Park, Recreation, and
Tourism Resources


Major professor

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**A COMPARATIVE ANALYSIS OF THE INFLUENCE OF BUSINESS
ENVIRONMENT FACTORS ON DECISION MAKING IN VARIOUS
INDUSTRIAL SECTORS WITH EMPHASIS ON
TOURISM AND SMALL BUSINESSES**

By

Yonghee Park

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ABSTRACT

A COMPARATIVE ANALYSIS OF THE INFLUENCE OF BUSINESS ENVIRONMENT FACTORS ON DECISION MAKING IN VARIOUS INDUSTRIAL SECTORS WITH EMPHASIS ON TOURISM AND SMALL BUSINESSES

By

Yonghee Park

Business decisions involving start-up, retention, investment, and expansion are affected by factors that comprise the ever-changing external environment. Of various external environment factors, government policy is of strategic importance to businesses, because it often impacts the size and structure of markets, the cost of doing business, and many aspects of making business decisions. Although previous research has examined the influence of state-government policies on large manufacturing businesses, few studies have examined the impact of various environment factors on the decisions made by different types or sizes of businesses, including services and hospitality/tourism and small businesses.

The primary purposes of this study were to (1) determine the extent to which various external environment factors influence businesses' hiring decisions; (2) assess whether or not size or type of a business influences how a business responds to external factors, including state-government policies; and (3) compare the perceptions that owners and managers of different types and sizes of businesses have of state agencies, their services and their expertise.

Focus groups were conducted first with 21 agriculture, manufacturing, and service-sector business owners and managers. Insights from the focus groups were then utilized to guide development of a state-wide mail questionnaire that was administered during the summer of 1995 by the Tax Policy Center at Michigan State University. The responding businesses (953) were categorized into six industries and three sizes. Factor analysis, ANOVA, and T-tests are performed to test six hypotheses.

Five general conclusions were drawn from the results of the hypotheses tests: (1) the *market environment*—consumer demand and supply of labor—is more influential in business hiring decisions than are state regulations and programs across different sizes and types of businesses; (2) the *market environment* is of greater importance to medium- and large-sized businesses than to small businesses; (3) businesses comprising the primary and the hospitality/tourism industries are more influenced by the *state-imposed cost of doing business* factor compared to the general-services and the managerial/personal-services industries. In general, secondary industry businesses are more significantly influenced by both the *market environment* and the *state-imposed cost of doing business* factors than are service industries, except for the hospitality/tourism industry; (4) businesses generally have negative perceptions about the quality of state-provided business services and the level of expertise of state-agency personnel. The wholesale/retail and the hospitality/tourism industries, however, have more unfavorable perceptions of government services than does the general-services industry; and (5) the more agencies with which businesses have had contact, the more unfavorable are their perceptions of the overall quality of state-provided services. In this case, contact with more agencies does not improve the perceptions of state-services provided to businesses.

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Chapter 1

1. INTRODUCTION

Over the last twenty years there have been significant changes in the structure of the economies of both the U.S. and the state of Michigan (Kutscher and Mark, 1983; Fosler, 1988). The national income produced by the service industry (1,230.7 billion dollars in the last quarter of 1994, 1,335.9 billion in the last quarter of 1995, and 1,399.5 billion in the first quarter of 1996) has exceeded that of the manufacturing industry (991.2 billion dollars in the last quarter of 1994, 1,026.3 billion in the last quarter of 1995, and 1,041.2 billion in the first quarter of 1996). If the finance (938.8 billion dollars), insurance (991.9 billion dollars), and real estate industries (1,017.8 billion dollars) are included as part of the service sector, the total income generated by the service sector becomes even larger (U.S. Department of Commerce, 1996, p.25).

The annual average employment of all manufacturing businesses in the United States of America declined from 1967 (19.3 million) to 1972 (19.0 million), increased briefly in 1977 (19.6 million), and then continued to decline in 1982 (19.1 million), 1987 (18.9 million), 1991 (18.1 million) and 1992 (18.3 million) (U.S. Bureau of the Census, Census of Manufactures, 1967, 1972, 1977, 1982, 1987 and 1992 ; Annual Survey of Manufactures, 1992). Between 1960 and 1981, the number of jobs in goods-producing industries (manufacturing, mining, and construction) increased at an average rate of 1.0 percent a year. By comparison, employment in service industries (all other industries, such as hotel, tourism, medical, professional, personal, and several other services) grew

by 3.2 percent annually (Kutscher and Mark, 1983, p.21). These growth trends have continued in the 1990s. For instance, employment in the service sector was 28,000,000 in 1990 and increased to 30,654,000 in 1992 (The National Data Bank, 1995). In 1993 and 1994 the number of full-time and part-time employees accounted for by the service sector was 32,633,000 and 33,634,000, respectively, whereas for the same years the number of full-time jobs in the manufacturing industry was 18,173,000 and 18,429,000 respectively (U.S. Department of Commerce, 1996, p. D-31).

The Michigan economy reflects the nation-wide growth of the service industry and the decline of the manufacturing industry. Although manufacturing, especially the automotive industry, has served as the basis of the Michigan economy, significant changes in the composition of Michigan's economy were inevitable during the last two decades. The proportion of all employment in the manufacturing and automobile industries in Michigan was higher than in the other states until the late 1970s. Due to foreign competition in the automobile and other manufacturing industries, *e.g.* machine tools and primary metals, and the high cost of doing business, *e.g.* workers' compensation, unemployment insurance, and state and local taxes; high wages; high energy costs; and an overly bureaucratized, insensitive government regulatory system, in the state, Michigan had a poor business climate in the early 1980s (Kutscher and Mark, 1983; Fosler, 1988). As a consequence, Michigan lost its traditional advantage over the rest of the nation in basic manufacturing. A more detailed description of Michigan economic trends is included in Appendix A.

In contrast, a total of 83,000 new jobs were created in the service sector between 1978 and 1984. The number of new service businesses in Michigan outpaced business failures by 3 to 2, and 60 percent of the continuing service businesses grew in size by an average of nearly 60 percent (Leveson, 1985; Fosler, 1988). In the years following 1984, service businesses continued to grow at very rapid rates and became a substantial part of the state economy in terms of employment. These jobs were generally high-skill and high-status jobs, not fast-food industry jobs (Fosler, 1988). The service industry also provided the main avenue for absorbing the large labor supply of women, minorities youth, immigrants, and displaced workers (Leveson, 1985).

There has been a similar growth in the tourism sector of the service industry. During the transition from a manufacturing to a service economy in Michigan, tourism provided a needed boost to the economy by creating jobs and promoting regional economic development (Fosler, 1988). Bonnett (1993) suggested the tourism strategy as a basis for entrepreneurial activity by using tourism as a means of drawing the outside market into the local economy. As more tourists visit the state, more opportunities can be created for business development and job creation in: hotels, restaurants, and various service businesses.

Business Environment

The continued growth and success of these businesses are heavily dependent on how cost effectively they respond to changes in the external environment, including the actions of different levels of government, *e.g.* taxation and safety regulation (Marcus, 1993). To succeed, both manufacturing and service businesses must take

advantage of opportunities and respond to outside threats. Businesses must continuously make decisions related to their people, financial resources, innovations, and strategies (Sturdivant and Vernon-Wortzel, 1990). Business decisions involving start-up, retention, investment, and expansion are affected by factors that comprise the ever-changing external environment. Understanding the relationship of businesses with elements of their external environments is, therefore, an important area of inquiry.

The important elements of the external environment are: (1) the economy and economic trends; (2) cultural and social trends; (3) legal and political decisions and actions, including government policies; and (4) technologies, *e.g.* service technologies and communication technologies (Chamberlain, 1970; Steiner, 1975; Hofstede, 1981; Marx, 1985; Sturdivant and Vernon-Wortzel, 1990).

The economy and economic factors, including inflation, employment, wage rates, and interest rates, are of significant interest to businesses. Changes in the economy can create disadvantages, such as uneven income distribution, imbalance of payments, unemployment, and a low rate of savings or capital investment (Sturdivant and Vernon-Wortzel, 1990). On the other hand, economic changes and trends can create expansion and profit opportunities, such as the increasing size of the American market itself, a better qualified labor market, and favorable consumer demand for business (Steiner, 1975).

External trends, such as changing consumer tastes and needs, have a major influence on the economy, because the production of services and goods are dependent on consumer preferences that are expressed in the marketplace (Marx, 1985). The characteristics and quality of the labor market, such as changes in age structure, racial

composition, and the work ethic, are also important elements of the external environment (Chamberlain, 1970). In the case of micro-economic environments, stakeholders, such as competitors, suppliers, lenders, and shareholders, are also important elements (Sturdivant and Vernon-Wortzel, 1990).

Culture, another element of the external environment of businesses, provides guidance and a common framework for people and institutions of a society (Hofstede, 1981). In every society there is a continuous interaction among social values, institutions (*e.g.* governments, businesses, and schools), and individuals (*e.g.* consumers, employers, and employees).

Many of the economic and social conflicts caused by these interactions (*e.g.* conflicts in values and attitudes among individuals) are resolved in the legal and political sphere. For example, social activists may try to accomplish their goals by pressing for the passage of legislation to restrict or eliminate certain business practices or product categories. On the other hand, businesses often use political influence to prevent the passage of restrictive legislation or to try to weaken proposed laws or policies (Steiner, 1975; Marcus, 1993).

The legal environment includes acts passed by various lawmaking bodies, as well as administrative rules to implement legislation (Sturdivant and Vernon-Wortzel, 1990). The principal purpose of many laws and regulations aimed at businesses, such as price and wage regulations, labor laws, product laws, environment regulations, safety laws, and business licensing laws, is to encourage and maintain a desirable level of competition. Managers and owners of businesses need to use a variety of methods to influence the

political and legal process. It is important, therefore, for business people to know the administrative agencies that enforce laws and implement policies, to understand how they make decisions, and to determine the most effective ways that businesses can work with them (Pfeffer and Salancik, 1978).

Since technology can contribute to economic growth and development, forecasting technological change is important to managers and owners of businesses. Generally speaking, the technological environment is concerned with technological progress, *e.g.* new processes or materials and even advances in fundamental science (Narayanan and Fahey, 1987; Sturdivant and Vernon-Wortzel, 1990). Technological advance provides new products and automation services to all industries. For example, electronic mail systems make instant transfer possible and erase the delay of time-zone differences. Marketing through Internet web pages reaches vast numbers of prospects and changes the way a business communicates with customers. The new technologies of multimedia communications via video conferencing, global reservation systems, and automated booking systems especially affect the travel and hospitality industries (Kasavana and Cahill, 1992).

Relevancy and Importance of Government

None of these environment factors is more prevalent and evasive than government(s). According to Porter (1990), no structural analysis of an industry is complete without a diagnosis of how government policy, at all levels, affects businesses. Government policy is of strategic importance to businesses, because it often impacts the size and structure of markets, the cost of doing business, and many aspects of making

business decisions (Marcus, 1993). A study by Franklin and Goodwin (1983) found that small businesses, as well as large businesses, ranked external factors, including government policies, as the major cause of their problems. According to Peterson, Kozmetsky and Ridgway (1983), approximately 40 percent of the small businesses they studied also cited external factors as the major determinants of small business failure, most of them government related.

The role of state government in economic development has recently emerged. The U.S. federal and state governments have acted to encourage and support economic development and the growth of various industries (Scheible, 1991; Boeckelman, 1989). Many state governments have attempted to lure and retain mobile capital by creating a “good” business climate through the offering of incentives to businesses that lower their costs. In Michigan’s case, the former governor, James Blanchard, and his administration tried to provide a good business climate by changing the business community’s negative view of state government (Osborne 1988, p.171). More recently, Governor Engler has acted to reduce the tax rate on new businesses. He reduced taxes by eliminating the cost of workers’ compensation, social security, and unemployment insurance from the business tax base, by cutting the single business tax (SBT), and the alternative profits tax, by reducing the minimum unemployment insurance tax, and by providing property tax relief for farmers. In order to create more jobs, Governor Engler released a compilation of 28 projects that have chosen to locate in the state’s 11 tax-free “Renaissance Zones” in several economically distressed areas of Michigan (Rothwell, 1997^a). The incentives offered by state governments are categorized in Table 1-1.

Table 1-1 Types of Government Actions

Incentives	Description
Tax policy General Tax Structure	Types and rates of taxes imposed on individuals and businesses. Low taxes are viewed as desirable.
Tax Incentives	Exemptions, credits, and abatements to reduce taxes for businesses in order to encourage investment.
Debt Financing	Direct Loans, publicly chartered but privately financed pooled development funds, loan guarantees, and revenue bond financing.
Labor Incentives	Right-to work laws, job training programs, workers' compensation and unemployment insurance
Regulatory Policy	Minimal environmental regulations and a streamlined process for obtaining business permits are viewed positively by businesses.
Industrial and Commercial Site Development	Subsidized industrial parks and land banks
Targeted Financial Assistance for Capital and Infrastructure	Tax abatements and capital subsidies only to the firms that locate in high unemployment areas
Tax Increment Financing	Municipalities earmark all of the anticipated increased property tax revenue that will result from a new development project to back bonds that go to help certain elements of that project.
State Enterprise Zones	Specific zones in which barriers to entrepreneurial activity are reduced.
Venture Capital Programs	Provide high risk financing to small businesses at the gestation, start-up, and early expansion stages (e.g. development credit corporations, venture capital loan programs, product-development corporations, pension fund venture pools, and venture capital corporations)
High Technology Policy	High-technology research and product development to respond to emerging markets are encouraged (e.g. research grant programs, "human capital" programs, gubernatorial task forces and commissions, and university-industry research centers).
Science or Research Parks	These are reservations for firms engaged in high-tech research efforts that can profit from close proximity to a university's research efforts (e.g. technical assistance).
Export Promotion Activities	State and local governments promote the export of goods produced by local businesses to capitalize upon sources of demand (e.g. service activities, and market-development functions).

Source: Compiled from Peter K. Eisinger, *The Rise of the Entrepreneurial State*, 1988, pp.128-199.

Although there has been a very noticeable shift toward service employment and growth, most of these government programs appear to be aimed more at promoting large manufacturing firms, not service and tourism businesses. Employment growth of the service industry, including tourism and small businesses, however, is beginning to attract more attention from policy makers (Eisinger, 1988).

Both federal and state governments are actively engaged in various efforts which attempt to develop and market the tourism industry. More and more they have recognized the importance of tourism to the nation's economy and its vital role in marketing the country as a travel destination both domestically and internationally. For instance, President Bush appeared in a tourism promotion video program called, "America, Yours to Discover" (Lee, 1993, p.109). The state of Michigan has invested in two major tourism image campaigns, the "Say Yes to Michigan" in the 1980s and recently "Great Lakes. Great Times" (Rothwell, 1997^b).

Small businesses are also attracting greater attention by federal and state policy makers, because they have an important position in job creation and regional economic development (Birch, 1979). Studies conducted by Birch (1979) concluded that small businesses create the majority of all new jobs in the United States and contribute to the strength of regional economies. Unlike large industries, the profit attained by locally owned small business tends to be reinvested locally and strengthen the local economy (Basset, 1995). Michigan's evolution into a service and tourism economy from the automobile manufacturing dominated economy has played a significant role in the

process of small business development that has contributed to increased employment (Leveson, 1985).

1.1 Problem Statement

In recognizing government policies as an important external influence on businesses, a number of previous studies have examined the effect of specific government policies on various industries, *e.g.* expansion, investments, and profits, according to changes in tax policy. No study could be identified that examines the relative influence of various government actions and policies on different types and sizes of businesses. A better understanding of the comparative impacts of government policies and programs on different industries would be helpful in assessing proposed laws, regulations, and business attraction and retention strategies (Due, 1961; Kienschnick, 1981; Schmenner, 1982; Schmenner *et al.*, 1987; Newman and Sullivan, 1988).

The majority of state economic development and business retention strategies have focused on enticing and retaining manufacturing companies by offering low tax rates and other forms of tax incentives. As a consequence, research in this area has been primarily directed at factors that influence business-location decisions. Much of this research centers on the impact of taxes on business location and investment decisions (Boeckelman, 1989). The author was unable to locate a study that simultaneously assessed the impact of factors in the external environment or a broad range of government actions and policies across different types and sizes of businesses.

Almost all state governments have developed and implemented programs that encourage business (for example, manufacturing) location, expansion, and retention without having sufficient knowledge about the potential and actual effectiveness of policies, regulations, and incentives on different sizes and types of businesses. States offer tax exemptions on inventories, on new equipment, and on various forms of land and capital improvements, but there are few follow-up studies on the impact of these tax exemptions (Dubnick, 1983). There are even fewer published studies of the long-term benefits versus cost of these programs. Many of the studies that have been conducted raise questions relating to the cost-effectiveness of various tax incentive programs (Hellman, Wassall, and Falk, 1976; McHone, 1984).

Despite the increasing importance of the service and tourism industries in regional and local economic development and job creation, there has been less effort aimed at attracting and retaining these businesses than there has been in attracting manufacturing businesses (Smith and Fox, 1991; Luxenberg, 1994). No studies addressing the influence of the external environment, especially government actions targeted at these industries, could be identified (Johnson and Thomas, 1992). There is little scientific information that indicates whether or to what extent service businesses respond to government programs (*e.g.* tax incentives) as do the government programs offered to manufacturing businesses. Nor is there much information pertaining to how tourism- and service-related businesses respond to other external environment factors, such as consumer and labor markets, or whether they respond in the same fashion as manufacturers.

The lack of such information makes it difficult for governments to develop and assess the potential impact of policies and actions that will effectively attract, retain, and stimulate the expansion of the service and tourism sectors. There is a continuing need for studies and evaluations of the relative effectiveness and sustainability of various policies and incentives that could be developed for tourism and service businesses.

1.2 Purpose of the Study

The primary purpose of this study is to identify and better understand the relative importance of various external environment factors, especially the effects of government actions on business decisions, particularly in the hiring of additional employees. Another purpose is to determine whether and to what extent different types (*e.g.* service, tourism, manufacturing, and agriculture) and sizes of businesses respond differently to various factors that comprise their external environments, with special attention given to state government policy.

This study is designed to provide policy makers with information and analyses to help them to better understand how different industries respond to various government policies and actions. Such understanding provides the basis for developing policies that achieve different objectives for different types and sizes of businesses. For instance, if policy makers understand that the service industry is influenced mostly by labor market conditions rather than by tax policy, they will have clues to better meet the needs of this industry. Such knowledge can allow policy makers to provide appropriate policies and programs for different industries that will improve the economy in Michigan.

1.3 Objectives of the Study

The purposes of this study will be achieved by accomplishing the following five objectives:

1. Determine the underlying environment factors that influence business decisions which relate to the number of employees that businesses hire.
2. Determine the importance that different types and sizes of businesses assign to various environment factors, including government policy, in making their business decisions.
3. Determine whether and the extent to which the characteristics of a business (*e.g.* ownership, number of years in business, or seasonal vs. year-round) influence perceptions of state government services and expertise.
4. Compare the perceptions that owners and managers of different types and sizes of businesses have of state agencies, their services and their expertise.
5. Determine if and to what extent, previous experiences with state agencies influence the perceptions that owners and managers have of those agencies and the quality of the services they provide.

1.4 Research Hypotheses

The following research hypotheses were tested to achieve the research objectives.

1. The *market environment* factor is more important than the *state-government-imposed cost of doing business* factor in firms' hiring decisions.
2. There is a significant difference between small, medium, and large businesses (determined by total number of employees) in terms of the relative importance of various environment factors on their hiring decisions.
3. Small businesses are less influenced by the *market environment*, consumer demand and access to qualified labor, in their decision making than are medium- or large-sized businesses.
4. There is a significant difference between businesses in different industry sectors in terms of the relative influence of various environment factors on their hiring decisions.
5. The perceptions of state government, including the expertise of state personnel and the degree of satisfaction with state-government services, are influenced by the business type and size.
6. Businesses that have had prior experience with state agencies are generally more satisfied with the quality of their services than are businesses that have had no or very limited prior experience with government agencies.

Chapter 2

2. REVIEW OF THE LITERATURE

This section provides an overview of literature pertaining to the influence and impact of various external environment factors upon business strategies and business decisions relating to hiring. As presented in Figure 2-1, the literature search identified a vast amount of relevant theories and empirical studies exploring the importance and influence of various external environment factors on firms' decisions. This review, however, focuses more on government policies and actions that impact business development and expansion.

A substantial body of research has long established that the external environment is significant to business outcomes or behavior (Mockler, 1975; Steiner, 1975; Sawyer, 1979; Marx, 1985; Sturdivant and Vernon-Wortzel, 1990; Marcus, 1993). Furthermore, today's managers face external influences that are changing dramatically. The managerial task today, therefore, is more complex than in the past because of the rapid changes taking place in the external environment to which organizations must adapt for survival and development (Steiner, 1975; Dilts and Prough, 1987).

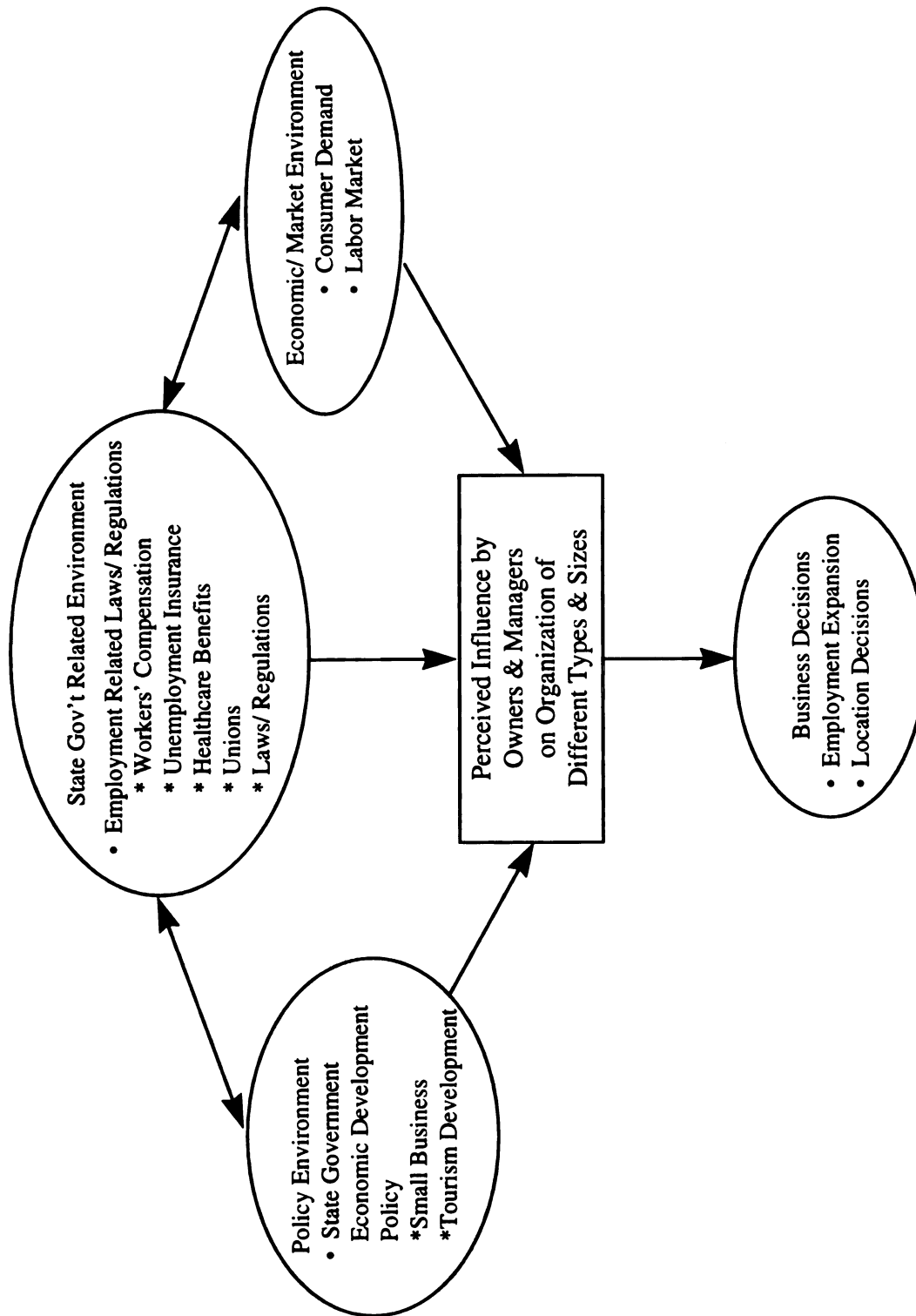


Figure 2-1 Model of the Relationship Between External Environment and Business Decisions

2.1 Conceptualization of the Relationship Between External Environment and Business Decisions

The general theoretical notion that environment factors influence organizational strategies and decisions is not a new one. These types of relationships have been conceptualized and evaluated in a number of fields. Theoretical development has been stimulated by organization theory (OT) regarding organization-environment strategic decision making (Bourgeois, 1980). Organization theory (OT) has assumed a more reactive stance by viewing the environment as a deterministic force to which organizations must respond. An elaboration of the notion of environment can be accomplished by categorizing the environment into its objective and perceived states (Bourgeois, 1980).

The objective environment can be further divided into “task” and “general.” Bourgeois (1980) suggests that the objective external environment and its variability are the source of firms’ opportunities and risks and as such must be included when decisions are made and executed, whereas managers’ perceptions of the environment are part of the decision making process. Organizational researchers have investigated the causal relationship between different environments, organizational strategic decision making, and firm performance (Dill, 1958; Burns and Stalker; 1961; Duncan, 1972; Bourgeois, 1978, 1980).

Industrial organization economics (IOE) theory is mostly concerned with the impact of environment factors, such as business position and industry structure on firm performance or behavior (Bain, 1956; Scherer, 1970; Gale, 1972; Caves and Porter, 1978; Newman, 1978; Hatten, Schendel and Cooper, 1978; Porter, 1980,1981). On the other

hand, the business policy (strategic management) literature has evaluated the extent to which organizational performance is influenced by strategy decisions at the expense of external or industry factors (Chandler, 1962; Bower, 1970, 1972; Rumelt, 1974).

Finally, organizational ecology has contributed two research streams relevant to the question of firms and their environments. One of the streams, population ecology, has focused primarily on the issue of external environmental control of organizational behavior (Aldrich, 1978). This approach posits that organizational actions are dependent on the availability of critical resources usually controlled by other organizations or institutions. Since organizations are not internally self-sufficient, they require resources from the environment. The other stream, resource dependence theory, also addresses intra-organizational constructs (Pfeffer and Salancik, 1978). The latter theory holds that organizational behavior becomes externally influenced by the elements of environment, because the organization must obtain resources necessary for its continued survival and success (Pfeffer and Salancik, 1978). Elements of the four major research streams related to environmental influence are presented for comparison in Table 2-1.

Table 2-1 Literature Pertaining to Key Elements of Four Theoretical Constructs/ Theories of How Businesses Relate to Their Environments

Theoretical Approach	Environment Factors/ Concepts	Firm Behaviors Affected (Decisions)	Author (Year)
Organization Theory (OT)	Uncertainty Variety Dynamism Complexity	Managerial Autonomy Organizational Form/ Structure Performance Information Processing	Dill (1958); Burns & Stalker (1961); Lawrence & Lorsch (1967); Galbraith (1973, 1977)
Industrial Organization Economics (IOE)	Industry Structure (Barriers, Numbers of buyers and sellers, etc.) Business Position (Market Share, Strategic Groups, etc.)	Economic Performance Competitive Strategy	Gale (1972); Caves & Porter (1978) Hatten, Schendel, & Cooper (1978); Porter (1980, 1981, 1990)
Business Policy (BP)	Product/ Market Characteristics Corporate Strategy (e.g. diversification) Resource Allocation (within Functional areas)	Business Strategy Performance Organizational structure Strategy (Decision Making)	Hofer (1975); Ansoff (1965); Anderson & Zeithaml (1984); Chandler (1962); Rumelt (1974); Bower (1970, 1972)
Organizational Ecology Population Ecology Resource Dependence	Uncertainty Compatibility of Resource States Environmental Gain Interorganizational Dependence Organization Set Resource-Dependence Intraorganizational Power	Survival (Through Variation, Selection and Retention) Strategies (Adapting or Modifying the Environment)	Aldrich (1979); Pfeffer & Salancik (1978)

Source of literature: White and Hamermesh, 1981; Bourgeois and Astley, 1979;
Bourgeois, 1980; Pfeffer, 1982; Carroll, 1984

2.1.1 Environment and Businesses in Organization Theory

Since the fundamental premise of this study is to test the impact of external environments on business decisions (strategic decisions), organization theory provides the conceptual basis which can be used to guide this research. Organization theory has conceptualized organizations as open systems engaging in transactions with their environments. Dill (1958) pioneered a study that both defined the components of top management's task environment and suggested a causal relationship in which this task environment affected managerial autonomy. Subsequent researchers have utilized larger sample sizes than the two-firm sample used by Dill (1958) and have enriched the definitions of environment (Bourgeois, 1980). Also conceptual pieces, such as written by Thompson (1967) and Terreberry (1968), emphasized that organizations must adapt to external forces in order to maintain viability. Woodward (1965) and Perrow (1967) extended the research to include technology as a determinant of environments. Galbraith (1973, 1977) bridged environment and technology by focusing on the environmental information-processing needs of an organization. Most of these works utilized field studies and correlation techniques to impute a causal link from environment to organization.

2.1.2 Two Views of Environment in Organization Theory: Objective and Perceived Environment

The environment literature centers on two questions, one philosophical and the other methodological. The philosophical question is: Which perspective of the construct of "environment" is most relevant to an organization's behavior—its manager's

perceptions of environmental states or some objective characteristics of its environment? Since most of the literature does not distinguish between the environment as an objective set of components and the environment as perceived by owners or managers of the organization, uniform treatment of the environment emerges as a methodological issue (Bourgeois, 1980).

Environments are classified into two categories based upon the perspectives of environmental research and organization theory. Organizational environments have been defined as (1) objects and (2) perceptions. In the first category, Dill (1958) made the distinction between general and task environments. The task environment is viewed as the most direct short-term impact on the organization, while the general environment (the environment beyond the task environment) is viewed as a field into which an organization may enter at some point in the future (Thompson, 1967). Thompson (1967) also distinguished between the task environment and an additional “residual” environment composed of potential task environments. The task environment was composed of the four environmental components: (1) customers (distributors and users); (2) suppliers (of material, labor, equipment, and capital); (3) competitors (for both markets and resources, such as financial resources); and (4) regulatory groups (governments, government agencies, and unions) (Dill, 1958; Thompson, 1967). Duncan (1972) later added technology into these components.

The second category consists of definitions that treat environment in terms of managerial perceptions of environmental uncertainty. While the perspective of objective environment focuses on the environmental components that are “outside” the

organization and uses objective indicators of the environment, some researchers consider management's perceptions of the components (Bourgeois, 1980). For example, Weick (1969) argues that the environment becomes known to the organization only through managerial perceptions (Tosi, Aldag, and Storey, 1973; Miles, Snow, and Pfeffer, 1974; Anderson and Paine, 1975; Downey, Hellriegel, and Slocum, 1975; Starbuck, 1976;).

Hambrick and Snow (1977) later argue in support of this paradigm and assert that the objective reality of physical environmental attributes is consequently less important in determining or influencing organizational action or decision making. Every firm has an objective environment that places constraints on the way it operates and makes decisions (*e.g.* an industry group has certain technical characteristics that must be attended to). Therefore, it is the differing perceptions of owners or managers that are considered to be a crucial input to the strategic decision making process (Bourgeois, 1980). As an example, in a study on the decision making behavior of a profit-maximizing firm that perceived a recession, Leban and Lesourne (1983) concluded that the perceived problem of a recession by a firm was enough to launch a real recession. In order to manage the perceived change, the firm was confronted with three choices: (1) investment; (2) recruitment; and (3) firing. Management chose the third. Table 2-2 summarizes the two different perspectives of the environment as treated in the operational literature.

Many researchers have later agreed that environments can affect firms' strategic decisions (Clark, 1971; Rockart, 1979; Jauch *et al.*, 1980; Jemison, 1981; White and Hamermesh, 1981; Hambrick, 1983). Research has also shown that external business environments can affect a firm's performance and success (Porter, 1981; Kefalas, 1981;

Hansen and Wernerfelt, 1989). Kefalas (1981) has argued that managers can perceive and analyze six sectors of their external environments: (1) public; (2) government; (3) technology; (4) domestic market; (5) world market; and (6) ecology and anticipate the impact of these six sectors on their businesses to make better decisions. Such anticipation guarantees greater probability of survival in the face of sudden changes and better performance in the long term (McArthur and Nystrom, 1991).

Table 2-2 Literature Pertaining to Objective and Perceived Environment

Perspectives	Dimensions	Operational Definitions
Objective Environment	General Environment Task Environment	Not operationalized for organization theory; Customers, competitors, suppliers, and regulatory agencies (Dill, 1958; Thompson, 1967; Duncan, 1972)
Perceived Environment	Perceived Environmental Uncertainty	Lack of information; knowledge about decision outcomes; ability to estimate the effects of the environment on a firm's performance (Duncan, 1972; Lawrence & Lorsch, 1967)

Sources of literature: Duncan, 1972; Starbuck, 1976; Bourgeois, 1980.

2.2 Research on Influence of Various Business Environment Factors on Business Decisions

The impact of external environments on firms has received some research attention in the form of empirical studies that attempt to identify the factors or elements of external environments that may impinge on the success of a business. The early work by Bruno and Tyebjee (1982) summarized the findings of 17 studies reporting the importance of 12 environment factors. Articles reviewed by Bruno and Tyebjee were

either based on observational type studies or surveys of the perceptions of business owners or managers (Bruno and Tyebjee, 1982). After reviewing previous studies of the impact of external environments on businesses, economic or market factors (*e.g.* consumer and labor markets), governmental and legal factors, financial or operating cost factors (*e.g.* taxes, workers' compensation, unemployment insurance, and cost of benefits), and technological factors seem to emerge as recurrent and important factors that influence business decisions. Table 2-3 lists the factors identified in the research reviewed by Bruno and Tyebjee.

Table 2-3 Literature that Identifies Various Business Environment Factors

Environment Factors	Author (Year)
Accessibility of Suppliers	Cooper (1970); Shapero (1972); Schollhammer & Kuriloff (1979)
Accessibility of Customers or New Markets	Stanford Research Institute (1962)
Favorable Government Policies	Hollingsworth & Hand (1979); Cooper (1973); Mahar & Coddington (1965); Vesper & Albaum (1979)
Availability of Supporting Services	Naumes (1978)
Availability of Land or Facilities	Mahar & Coddington (1965); Quirt (1978)
Availability of Transportation	Mahar & Coddington (1965); Cooper (1973); Schary (1979)
Experienced Entrepreneurs and Incubator Organizations	Cooper (1970); Naumes (1978)
Technically Skilled Labor Force	Draheim (1972); Stanford Research Institute (1962)
Venture Capital Availability	Cooper (1970); Susbauer (1972); Hoffman (1972)
Proximity of Universities	Shapero (1972); Cooper (1973); Mapes (1967); Allison (1965)
Receptive Population	Mahar & Coddington (1965); Cooper (1970)
Attractive Living Conditions	Shapero (1972); Cooper (1970, 1973); Mahar & Coddington (1965)

Note: Adapted from Bruno and Tyebjee, 1982.

2.2.1 Economic/ Market Environment and Its Effect on Business Decisions

Factors comprising the economic environment (*e.g.* interest rates, consumer demand, labor-market trends, and inflation) can be characterized as the “competitiveness” of the external business environment. These factors are also like double-edged swords, in that they can represent both threats and opportunities to businesses. For example, the U.S. economic upturn after the recession of 1990-1991 and the growth in the number of service businesses created a shortage of service workers, which pushed up wages for front-line service staff (Marcus, 1993). In the same context, Conan (1994) stated that the food service industry faced a declining number of skilled kitchen workers for moderately priced restaurants, which was due to a labor shortage. In the Hospitality’s 5th Vision Forum in 1996, the participants from Papa Ginos of America, Inc., ITT Sheraton Corp., and Bugaboo Creek Steak House, Inc. agreed that the labor shortage was a problem in the hospitality industry for which they discussed strategies to face the issue (DeLuca, 1996). The economic recovery in the U.S. stimulated growth in consumer demand for domestic production, in corporate cash flow (up 15 percent in 1992 and 10 percent in 1993), and in weekly working hours of manufacturing employees (the longest since October 1966) (Anonymous, 1992^a).

The research on decision-making behavior of businesses by Leban *et al.* (1983) also supported the premise that economic trends, including consumer demand, influence firms’ hiring decisions. Their results showed that businesses facing recession and decreased consumer demand increased the number of employee firings and demonstrated a stronger irregularity in recruitment.

Today, the definition of economic environment must be expanded to include economic conditions and actions of other countries. For example, recent downturns in the economies of several Asian Pacific countries have caused major economic challenges for those countries and have created enormous amounts of unemployment, high interest rates, and high inflation. Such situations have caused big corporations to downsize and have forced a systematic internal restructuring of many firms in the Asian Pacific region. The recent economic collapse in Asian countries has also begun to influence the U.S. market and economy mainly in unfavorable ways (*e.g.* dampening the flow of U.S. exports).

Conversely, changes in the economic environment can also create opportunities for business development and increased profits. Although the current challenging Asian economic situation has led to increased rates of unemployment, it has also been an opportunity for many companies to build a more qualified labor force than would be possible in rapidly growing economy. For many Asian countries, high unemployment rates can be an opportunity, especially for foreign companies or small businesses, to hire more qualified labor. Thanks to downsizing among big companies, small businesses can gain the upper hand when they hire skilled labor (Mamis, 1997). Furthermore, many low-wage, yet qualified laborers from foreign countries, serve to offset the tightening U.S. labor market. For example, the U.S. government has recently allowed high-tech companies to resume hiring foreign engineers in order to solve the engineer shortage situation (Elliott, 1997).

Today's strong consumer demand for products and services, easier access to credit by firms, and low interest rates represent a positive economic environment (Hymans, Cary, and Wolfe, 1996; Curtin, 1996; Cary, Fulton, and Hymans, 1996). The results of "The Survey of Consumers " published by the Survey Research Center at the University of Michigan, also reflects the trends of a strong economy and stable consumer confidence in recent years, as indicated by the favorable consumer sentiment index, cited by Curtin (1996): average 92.3 in 1994, 92.2 in 1995, and 92.7 in October, 1996.

Consumers' confidence in their financial situations lead to higher demand for products and services, which in turn stimulates employment growth. Keyser (1997) reports that customers' demands are currently high, with focus on higher levels of service and more value. A report from the National Federation of Independent Business (NFIB Education Foundation, 1998; Anonymous, 1998) also supports the case of a positive impact of a favorable consumer market on businesses. According to the report, even small businesses have added more employees at a high rate during the period 1996-1997 and plan to hire more in the near future. The recent job market in other business sectors also shows signs of a hiring boom and low unemployment rates (Berman, 1997). According to a recent report on the prospects for the U.S. economy, the average unemployment rate was 5.65 percent in the third quarter of 1995, 5.24 percent in third quarter of 1996, and projected to steady rates of 5.27 percent in third quarter of 1997 and 5.36 percent in same quarter of 1998 (Hymans, Cary and Wolfe, 1996).

Businesses currently face a tightening labor market that has been accelerated by a strong economy fueled by strong consumer demand. The U.S. Bureau of Labor Statistics

also predicts a continuing shortage of qualified workers for the 18 million new jobs that will be created by the year 2000 (Sullivan and Duplaga, 1997). As a result, a growing body of research has emerged that is concerned with the impact of a tighter labor market on businesses. The main impact on employers is the increased cost of doing business that is due to higher wages, more employee benefits (*e.g.* more incentives, bonuses, and higher compensation), time-consuming recruitment, and expanded training requirements (Sargent, 1988; Cooper and Madigan, 1996). Coping strategies for businesses to reduce costs related with tightening labor markets have been identified. Golden and Appelbaum (1992) recommend increased use of temporary employees (a rise of 2.5 times already between 1982 and 1988) as a strategic decision by businesses for reducing labor costs. Such employment decisions that trend toward hiring older workers (Sullivan and Duplaga, 1997), hiring more part-time workers than full-time (Higgins, 1996), hiring low-wage foreign workers (Vijayan, 1997), providing more training opportunities for employees to upgrade their skills (*e.g.* developing apprenticeships for the food service industry by The American Culinary Federation), and providing incentives for skill-based compensation programs (Conan, 1994; DeLuca, 1996; Ermel and Bhol, 1997) have been tried by employers and managers with the aim of attracting and retaining skilled workers, as well as simultaneously reducing labor costs.

Another impact of a tight labor market that has been discussed in the literature is the constraint of economic growth throughout the U.S., especially in the Midwestern states (Buss, 1996; Cobb, 1996). Structural changes in the Midwest during the 1990s have left the economy very different from what it was in the late 1970s and early 1980s. By

1994, however, job growth in the nation had caught up to the Midwest and by 1996, had surpassed it. In 1997, Midwest job growth was only about 1.4 percent compared with the nation's 2.2 percent, which was mainly due to a labor shortage (Kaglic, 1998).

Furthermore, Kaglic (1998) explains that the economic growth potential of Midwestern states will be limited by the shortage of qualified workers, even though many businesses in the region have developed optimistic hiring plans. Buss (1996) also argues that labor shortages produce the tightest labor market for small businesses and deters small business development more so than for larger businesses. Since businesses, especially small businesses, are very reluctant to raise wage offers to fill incremental positions and are concerned about cost reductions, few firms increase current holdings and remove inventory investment as a source of growth (Dunkelberg, 1996).

The labor shortage and related problems for most businesses throughout the U.S. call for government actions to improve the situation. Examples are the Welfare to Work Partnership, a non-profit organization launched in May 1997 that encourages (Cobb, 1996; Hersch, 1997) and assists businesses in hiring individuals from public assistance, and policies favorable for businesses (*e.g.* the permitting of high-tech companies to hire foreign workers) (Elliott, 1997). In Michigan, for instance, Battle Creek Unlimited (BCU) is a non-profit economic development corporation responsible for marketing Fort Custer Industrial Park that has developed an enterprising program to produce a skilled workforce for the city. The program was designed to serve as a liaison among employment and training agencies, educators, and employers. This program has increased its visibility and has examined collaborative possibilities through state

economic development agencies where the availability of an adequate pool of qualified labor has become a critical issue (Elferdinck, 1992). These examples indicate that government is an important source of constraints and opportunities within the market environment of businesses.

Research on the impact of consumer demand and a tightening labor market on firms' decisions and economic development are summarized in Table 2-4.

Table 2-4 Literature Relating to the Impact of the Economic Environment on Business Decisions

Economic Environment Factors	Firms Decisions & Economy	Author (Year)
Strong Consumer Demand	Hiring more full-time employees	Anonymous (1998)
	Growth in weekly working hours of manufacturing employees	Anonymous (1992)
Weak Consumer Demand	Slow hiring	Cooper & Madigan (1996)
	Reduce work week	
	Slowdown in outputs in all industries	
	Increased number of firings and irregular recruitment	Leban <i>et al.</i> (1983)
Labor Shortage	Increased cost of doing business	Sargent (1988)
	Hiring more temporary workers	Golden & Appelbaum (1992)
	Hiring more older workers	Sullivan & Duplaga (1997)
	Hiring more part-time workers/ fewer full-time workers	Higgins (1996)
	Hiring low-wage foreign workers	Vijayan (1997)
	Providing more training programs	DeLuca (1996); Ermel and Bhol (1997)
	Limited economic growth potential (Midwestern States)	Kaglic (1998)
	Deter small business development	Buss (1996); Dunkelberg (1996)
	Call for government actions to address the labor shortage related problems	Hersch (1997); Elliott (1997)

2.2.2 Government Regulations and the Legal Environment

2.2.2.1 Relevant Legislation and Its Effects on Business Decisions

The government has traditionally been and will continue to be the major element in the environment of businesses. Trends in government budgets and taxes, trade and anti-trust legislation, regulation, deregulation, and economic-development incentive programs have important effects on the U.S. economy and businesses (Marcus, 1993).

Government intervention and regulation of business operations have gradually increased since the end of the nineteenth century (Mockler, 1975). From 1787 to 1860, there was almost no government regulation of business, which was due to laissez-faire capitalism (Marcus, 1993). During this period, businesses had such privileges as monopoly rights, tax exemptions, and the right of eminent domain that were all designed to encourage scarce capital to find its way into business and so help the country grow economically strong. A new phase in business-government relations began after the Civil War as monopolies grew in size and began to stifle competition and inflate prices. During this period, small businesses found it difficult to survive (Mockler, 1975). The Interstate Commerce Act of 1887, the first significant federal law affecting businesses, was enacted to protect farmers and small businesses. Farmers and small businessmen, however, were still subjected to high interest rates, high grain storage fees, and high prices for industrial goods. Three years later, the Sherman Anti-trust Act (1890) was enacted to protect small businesses from monopolies. Even after this legislation was enacted, public pressure continued to grow for the government to take more decisive action against large monopolies. For example, President Theodore Roosevelt at the

beginning of the twentieth century supported the Sherman Anti-Trust Act and started a movement that resulted in the breaking up of two major monopolies, the Standard Oil Company of New Jersey and the American Tobacco Company. In the beginning of the twentieth century, the U.S. government introduced legislation designed to increase competition and prevent unfair restraint of trade, such as the Robinson-Patman Act (1936) and the Celler-Kefauver amendment (1950) (Mockler, 1975).

In recent years, government action has been taken in the area of environmental protection. This line of legislative began with the Federal Water Pollution Control Act of 1948 and was followed by other acts to protect natural resources (*e.g.* the Clean Air Act, the Clean Water Bill, and the Federal Pesticide Control Act). This legislation required a significant reduction by the mid-1980s in the amount of water pollution that was produced by industry and local governments (Mockler, 1975). Later provisions of the 1990 Clean Air Act further lowered the level of air pollutants that could be legally released, which affected industry by forcing many firms to begin to develop a long-term strategy for complying with the act's new requirements. Along with any parallel state regulatory actions, businesses needed to adopt new control technologies and alternative processes, as well as allocate appropriate management resources to comply effectively.

The shift to proactive environmental management has been driven by pressure from government, customers, employees, and competitors. Moreover, the trend toward proactive environmental management is being accelerated by public pressures on government to assure a cleaner and safer environment. Accordingly, government regulations have become more stringent and, consequently, legal liabilities for

environmental damage have become more burdensome and costly. The firms have become “cost strategic” to face the issue (Berry and Rondinelli, 1998).

There have also been a number of consumer protection laws that have increased the regulation of businesses. Examples of these laws include the Meat Inspection Act, the Pure Food and Drug Act, the Fair Credit Reporting Act, the Equal Credit Opportunity Act, the Real Estate Settlement Procedures Act, the Truth in Lending Act, the Fair Debt Collection Practices Act, the Fair Housing Act, etc. (Mortgage Library, 1998). When it comes to fairness, one relatively recent piece of legislation is worth noting. The Americans with Disabilities Act of 1990 (ADA) added a new layer of state and local government regulation to the Rehabilitation Act of 1973. The employment provision of ADA became effective for almost all businesses with 25 or more employees on July 26, 1992 and affected the employment practices and operations of many businesses (Candris, and Anderson, 1991).

Other areas of governmental concern over business activities include product safety and worker safety. Government, however, has been supportive of businesses by providing, for example, tax incentives to address certain issues (Marcus, 1993). Businesses that fail to comply with these state and federal regulations face criminal charges, large fines, intervention, or shutdown by regulatory agencies (Galer, 1990). Food service facilities are especially affected by more health and building code regulations (*e.g.* standards for life, safety, indoor air quality, structural integrity, and accessibility for the physically disabled) than most retail or service businesses (Frable, 1997).

State and local government agencies also impose economic regulations on businesses with regard to zoning, controlling pollution, maintaining health standards, and licensing (*e.g.* the licensing of installers of telecommunications cabling) (Kuehn, 1997; U.S. Bureau of the Census, 1972, p. 18; Wells, 1992; Cenicerros, 1997; Finnegan, 1997). Since the Occupational Safety and Health Administration (OSHA) promulgated significant environmental and safety-related regulations and many states have imposed similar restrictions, businesses have begun spending significant sums to comply with these guidelines. Consequently, businesses have tried to manage the situation with cost-sensitive strategies, for example, by seeking tax deductions for compliance (Rocheleau, 1992).

Currently, most states in the U.S. (41) have shifted into a deregulation mode with respect to economic regulation (Calderwood, 1994; Gawla and Rundle, 1982). Movement from a regulated to a deregulated environment changes fundamental managerial assumptions, criteria, and decision making to the degree that the business is transformed. According to Mahon and Murray (1980), “in a deregulated environment, firms have a tendency to overextend themselves financially, managerially, and structurally,” which implies that today’s managers and owners need to strategically adjust to an evolving business environment that deregulation might bring (Mahon and Murray, 1980, p. 123).

2.2.2.2 Employment Related Laws and Expansion Decisions

2.2.2.2.1 Impact of Workers' Compensation on Business Expansion

Workers' compensation laws and regulations require "employers to provide cash benefits, medical care, and rehabilitation services to their employees for injury or illnesses arising out of or in the course of employment" (Butler and Appel, 1990, p. 595). "Employers can fulfill the obligations to provide workers with compensation coverage by purchasing insurance from a private insurance carrier or from an insurance fund run by the state, or by self-insuring. Provision of this coverage is mandatory in 47 states with New Jersey, South Carolina, and Texas being elective states" (Butler and Appel, 1990, pp. 594-595).

Workers' compensation is the fastest rising cost problem facing organizations both large and small in the U.S. (Miller, 1992). Workers' compensation costs as a proportion of covered payroll doubled from the mid-1960s to the mid-1980s. "The total workers' compensation benefit payments received by individuals soared from 18.3 billion dollars in 1980 to 44.1 billion dollars in 1990, while employer spending on workers' compensation rose from 19.3 billion dollars to 45.9 billion dollars" (Miller, 1992, pp. 22-28). The result of a NFIB (National Federation of Independent Business) survey lists workers' compensation as the second leading problem among business owners with employees (NFIB Education Foundation, 1988). Similar results were found in an Alexander and Alexander risk-management survey. Most respondents (91 percent) ranked cost containment strategies for workers' compensation as the premiere topic of importance (Butler and Appel, 1990; Miller, 1992). Miller (1992, p.27) explained that

“the reasons for the increasing costs were: (1) the rising cost of medical care; (2) the increasing litigiousness of the system; and (3) the expansion of the definition of ‘compensable injury’.” Much empirical research on the effect of the workers’ compensation system has indicated that the patterns of claims frequency and duration have varied directly with workers’ compensation benefits (Chelius, 1973, 1974, 1977, 1982; Ruster and Appel, 1982; Butler and Worrall, 1983, 1985; Ruster, 1985), and wage decreases intended to compensate for higher benefits (Stuart and Walzer, 1983; Butler and Worrall, 1983, 1985; Moor and Viscusi, 1986).

In order to reduce workers’ compensation costs, employers have tried such management strategies as developing a better hiring process, tracking insurance coverage and rates, setting up safety programs, and considering self-insurance (Bork, 1989). Despite of the risk of getting discrimination complaints by disabled job applicants over hiring decisions (Fletcher and Harty, 1992), some employers prescreen applicants by using accident history data and by asking questions about medical conditions that may reasonably relate to job performance (Lucas, 1991). Some firms consider using robots to reduce the high costs of employee illness and injury. These firms feel that robots can substantially increase a firm’s level of employee health and safety leading to reduced workers’ compensation costs, health insurance premiums, risk of being sued for occupation-related illness, costs associated with absenteeism, lost output caused by illness, and costs of hiring and training replacements for disabled workers (Lambrinos and Johnson, 1984; O’Mara, 1997). These cost-reduction strategies may either manifest themselves in increased layoffs or in the slowing down of hiring, *e.g.* Wal-Mart stores

(Soderquist, 1994). Instead of hiring full-time workers (Gawla and Rundle, 1982), however, companies may hire more temporary or leased employees, *e.g.* small-chain restaurants lease employees (Hayes, 1997). As another effective way of lowering labor costs, an increasing number of employers have started to adopt the fostering of workplace safety as a way to address the requirements of workers' compensation legislation (Dembe, 1995).

2.2.2.2.2 Impact of Unemployment Insurance Benefits on Businesses

A federal-state unemployment insurance system was started under the Social Security Act signed by President Franklin D. Roosevelt in 1935 (Drake and Moskowitz, 1997). Unemployment insurance funds are derived from taxes levied on employers, except in Alaska, New Jersey, and Pennsylvania (Drake and Moskowitz, 1997). Unemployment insurance taxes are based on the number of employees, the duration of their employment, and the number of claims workers have charged against the employer (Anonymous, 1992^b).

In early studies of the effects of unemployment insurance on the labor market, researchers had found that unemployment insurance was an influencing factor on firms' decisions to lay off workers to reduce costs (Kaplan, 1976; Baily, 1977; Feldstein, 1976, 1978; Topel, 1983; Kahn, 1987). Later authors agreed that there is a relationship between unemployment insurance and firms' hiring decisions, for example, unemployment insurance causes downsizing (Rejda and Rosenbaum, 1990; Dauffebach, Penn and Knutson, 1996) and business strategies (*e.g.* effects on the choice of locations and

investment). In researching the relationship between unemployment insurance and regional economic development, Testa and Davila (1989) found that unemployment costs influence the geography of business investment by manufacturing firms, which deters regional economic development. Since each state can determine the terms and size of unemployment benefits paid to workers (decentralized), regional cost of doing business, especially for manufacturing firms, vary depending on the unemployment insurance cost in a state (Singletary, 1991).

2.2.2.2.3 Impact of Healthcare Benefits on Businesses

A historical record of healthcare data shows that national healthcare expenditure as a percentage of GDP in 1995 at 15.4 percent has nearly tripled since 1965 (5.9 percent), and the trend is expected to continue growing into the year 2000 (Musgrave, 1994). Farrell (1993) also estimates that annual spending by companies for healthcare has more than tripled to 225 billion dollars over the past decade. These statistics have raised concerns over the cost of doing business, especially among small businesses (DePalma, 1997), and the cost of healthcare affects hiring decisions for all companies. High labor costs discourage smaller companies more than large ones from hiring more employees (Begany, 1991; Farrell, 1993; Soderquist, 1994). Since 1989, employment taxes and benefits for minimum-wage workers at small businesses have increased more than 15 percent. This high cost of hiring has caused lower wages for workers (Farrell, 1993) and more hiring of leased employees (Begany, 1991).

2.2.2.2.4 Impact of Unions on Business Decisions

Labor unions can be defined as “organizations of workers whose primary objectives are to improve the pecuniary and non-pecuniary conditions of employment among their members” (Ehrenberg and Smith, 1997, p. 472). In order to achieve their goal, unions bargain with employers over various employment issues, including pay, employee benefits, conditions of work, hiring practices, work time, and layoff guidelines (Farber, 1989; Ehrenberg and Smith, 1997; Drake and Moskowitz, 1997).

Even though union membership has declined over the years, such important regulations as “workers’ compensation law, welfare programs, equal employment opportunity laws, health and safety laws (passed in 1970), and legislation to improve healthcare are largely the result of pressures exerted by them [unions]” (Leap, 1995, p. 6; Drake and Moskowitz, 1997; Freeman, 1981; Alpert, 1982). Unions, therefore, have a hand in management decisions concerning employees, such as pay, employee transfers, promotions, training programs, incentive programs, performance appraisal methods, job design, the hiring process (DeRoy, 1995; Burns; 1995, 1996; Leap, 1995; Kennedy and Tisch, 1996; Drake and Moskowitz, 1997), and even hiring decision, such as firms’ hiring temporary replacement of striking workers and hiring part-time workers in unionized organizations (Zeytinoglu, 1992; Schnell and Gramm, 1994). In a study of the influence of unions on 37 human resource management practices, ranging from hiring to promotion practices, researchers found that unionization influences firms to be more selective in new hiring by adopting a formal probationary period for new employees (Ignace and Maki, 1994). Another empirical study on the influence of unions on firms’ hiring

decisions, using the National Longitudinal Surveys of young men and women, also confirms the previous findings that the union sector as a whole upgrades labor quality by influencing employers to upgrade the labor quality of new hires (Krishnan, 1994).

Unions are often accused of being responsible for driving up the costs of goods and services by forcing employers into paying high wages and by providing more benefits and incentives (Duncan and Stafford, 1980; Leap, 1995; Drake and Moskowitz, 1997). Raising wages by union activities, for example, may cause a decline in employment. The results of several studies suggest that unions reduce employment growth (Leonard, 1992; Dunne and MacPherson, 1994; Boal and Pencavel, 1994). An early study of the relationship between trade unions and layoffs in the U.S. manufacturing industry found that adjustment through layoffs was substantially greater in unionized firms than in non-unionized firms (Medoff, 1979). One of the studies conducted by Leonard (1992) concluded that the growth rates in unionized firms was slower than in nonunion firms. Other studies have found similar employment effects of unions for the United States, as well as for Canada and the United Kingdom (Blanchflower, Millward and Oswald, 1991; Valletta, 1993; Long, 1993; Dunne and MacPherson, 1994; Bronars, Deere and Tracy, 1994). Previous studies are summarized in Table 2-5.

Table 2-5 Literature Pertaining to the Impact of Employment-Related Laws (legal environment) on Businesses and Hiring Decisions

Employment related laws	Impact on businesses and hiring decisions	Author (Year)
Workers' Compensation	Increases cost of doing business for large and small firms	Miller (1992)
	Decreases wage rates	Butler and Worrall (1983, 1985); Stuart & Walzer (1983); Moor & Viscusi (1986)
	Developing a better hiring process using accident history data and checking medical conditions	Bork (1989); Lucas (1991)
	Using robotics to reduce hiring and training costs	Lambrinos & Johnson (1984); O'Mara (1997)
	Increasing layoffs or slowing down of hiring	Soderquist (1994)
	Hiring more temporary or leased employees	Hayes (1997)
	Adopt provisions for fostering workplace safety as part of workers' compensation legislation	Dembe (1995)
Unemployment Insurance Benefits	Decisions to lay off workers to reduce the costs	Kaplan (1976); Baily (1977); Feldstein (1976, 1978); Topel (1983); Kahn (1987)
	Decisions to downsize	Rejda & Rosenbaum (1990); Dauffebach, Penn, & Knutson (1996)
	Influence the geography of business investment by manufacturing firms and location decision	Testa & Davila (1989)
	Cost reduction strategy by carefully scheduling production and inventory	Kaplan (1976)
Healthcare Benefits	Increase costs and effect hiring decisions by small businesses	DePalma (1997)
	Compare effects of the high costs on firms' hiring decisions by size of businesses (smaller companies are more influenced by high costs than larger ones in hiring decisions)	Soderquist (1994); Begany (1991); Farrell (1993)
	Lower wages for workers and promote hiring of leased employees	Begany (1991)

Table 2-5 (cont'd)

Unions	Influence management decisions concerning employees, such as pay, employee transfers, promotions, training programs, incentive programs, performance appraisal methods, job design, and the hiring process	Drake & Moskowitz (1997); Kennedy & Tisch (1996); DeRoy (1995); Burns (1995, 1996); Leap (1995)
	Promote hiring of more temporary and part-time workers	Schnell & Gramm (1994); Zeytinoglu (1992)
	Influence firms to be more selective in new hiring by adopting a formal probationary period for new employees	Ignace & Maki (1994)
	Influence employers to upgrade the labor quality of new hires	Krishnan (1994)
	Reduce employment growth due to high costs caused by unionization	Leap (1995); Drake & Moskowitz (1997); Duncan & Stafford (1980); Leonard (1992); Dunne & MacPherson (1994); Boal & Pencavel (1994); Bronars, Deere & Tracy (1994); Valletta (1993); Long (1993); Blanchflower, Millward & Oswald (1991)
	Layoffs in manufacturing firms are substantially greater in unionized firms than in non-unionized firms	Medoff (1979)

2.2.3 State Economic Development Policy as an Environment Factor and Its Effects on Employment and Businesses

Many state and local governments started to emphasize economic development during the 1970s and 1980s as a result of the forces of de-industrialization, government fiscal crises, and pressure from politically mobilized business communities (Osborne, 1988; Scheible, 1991). Many factors affect state economic development and also the general business environment, including proximity to markets and materials, quality of its economic infrastructure (*e.g.* roads and airports), quality of public services (*e.g.* education, police, and fire protection), labor availability, labor costs, labor relations, business costs, and the condition of national and international economies (Public Sector

Consultants, Inc., 1998). As economic development policy has become an increasingly important concern for state government, government industrial programs and actions for businesses have become an important environment of businesses. Businesses have also recognized the influence of state economic development policy on their decision making related to location, expansion, and general operational decisions.

2.2.3.1 State Economic Development Policy and Employment

Economic development has been defined as an effort by regions to redress the cumulative impact of broader social, cultural, and economic trends, including the shift from a manufacturing to a service-based economy (Ladd and Yinger, 1989).

According to Sanford (1967), state economic development is an attempt by state governments to stimulate employment by mainly encouraging the manufacturing industry and, in turn, by increasing income and wealth, and, in some cases, by revitalizing distressed communities. Later, Blakely (1989) agreed with Sanford (1967) by defining economic development policy as a process of policy making whereby governments manage their existing resources and enter into new partnership arrangements with the private sector, or with each other, to create new jobs, thus, increase employment, and to stimulate economic activity in a well-defined economic zone (Dawson and Robinson, 1963; Sharkansky, 1971; Sharkansky and Hofferbert, 1971; Tompkins, 1975; Lewis-Beck, 1977; Danziger, 1978; Stonecash and Hayes, 1981; Dye, 1990).

Unfortunately, states frequently engage in a competitive struggle to improve their locational advantage by attracting new businesses and by expanding existing businesses

to create new jobs (Dubnick, 1984; Chubb, 1988; Grady, 1987; Eisinger, 1988; Osborne, 1988; Fainstein and Fainstein, 1989; Williams, 1990; Dye, 1990).

Even though most states engage in economic development efforts by offering programs and incentives, debates continue as to whether or not this is a legitimate function of state governments (U.S. Congressional Budget Office, 1984; Grady, 1987; Lugar, 1987; Fosler, 1988; Osborne, 1988; Scheible, 1991). Those arguing in support of state economic development efforts include Osborne (1988) who argues that states serve as “laboratories of democracy” which test new policy ideas. He further contends that state, rather than federal, government can better attune to local and regional strengths and weaknesses. Boeckelman (1989) adds that state governments are closer to people’s preferences and, hence, are more responsive to them than the federal government.

There are also arguments against state government involvement in economic development policy. One argument asserts that because state industrial policies primarily encourage the relocation of firms, this type of incentive can distort market-based decision-making and hamper the overall efficiency of the economy. Another is that state policies may lead to a negative-sum game, because the resources that states depend on for attracting businesses do little to increase overall economic growth. Also, state economic development objectives and programs may conflict with national objectives (U.S. Congressional Budget Office, 1984). Programs for attracting and maintaining businesses include low tax rates, cheap labor, and various other incentives. Instead of developing the state’s economy, however, they can erode wages and the tax base over the long term (Boeckelman, 1989).

Conversely, Fosler (1988) emphasizes the cause and effect relationship between state policies and economic growth. He argues that the economic development process involves an explicit planning process and implicit strategies that make the state an attractive place in which to do business. Some supporters of economic development policy also agree that state development policy can positively affect the level of local private investment, as well as employment growth, by providing a favorable business climate and result in a net local and national economic benefit (Dubnick and Holt, 1985; Fieock and Cable, 1990; Bartik, 1992).

On the other hand, opponents of economic development argue that these policies have no net-positive effect on the local economy and have net negative-effects (Barker, 1983; Gray and Lowery, 1988; Ambrosius, 1988; Testa and Davila, 1989). Ambrosius (1988) states that traditional economic development tools, such as tax abatements, have no net-positive economic effect locally. Barker (1983) suggests in his study that business tax incentives have little or no effect on business-decision makers, and they usually support decisions that would be taken regardless of the incentives offered. Others assert that incentives and other economic development policies generate market inefficiencies by artificially supporting economically inefficient businesses or their practices (Fieock and Cable, 1990; Reich, 1992). These researchers emphasize the reduction of government intervention and regulation of businesses.

Since the overall effectiveness of state economic development policies and programs have been questioned, many researchers have tried to answer the question of the

impact of such policies and programs by utilizing business location theory and evaluation studies.

2.2.3.2 Evaluations of the Effects of Economic Development Programs on Location Decisions

Since the era of the New Deal, traditional state economic development programs have focused on creating jobs by recruiting mainly large manufacturing plants from other states or countries by offering financial incentives (*e.g.* usually tax-related programs) (Boeckelman, 1989; Smith and Fox, 1991). States have, therefore, been involved in a competitive struggle to improve their locational advantage in an effort to attract new businesses and encourage intra-state expansion of existing businesses (Dubnick, 1984; Chubb, 1988; Grady, 1987; Eisinger, 1988; Osborne, 1988; Fainstein and Fainstein, 1989; Dye, 1990; Williams, 1990).

There has been considerable research that focuses on the factors that actually influence the choice of business locations (Schmenner, 1982; Carton, 1983; Bartik, 1985; Boeckelman, 1989; Smith and Fox, 1991). Most studies show that tax breaks and related incentives have little influence on a firm's location decision regarding business start-up and expansion (Due, 1961; Kienschnick, 1981; Schmenner, 1982; Schmenner *et al.*, 1987; Newman and Sullivan, 1988). In one of the earliest studies on the subject, the Survey Research Center of the University of Michigan (1950) showed that taxes were not significant in location decisions. This survey (field interview) found that only nine percent of the firms interviewed mentioned taxes as an unfavorable location factor. Beginning with Due (1961) and followed by Kienschnick (1981), surveys of corporate

decision makers confirmed the early study result that taxes play a negligible role in location decisions. Based on interviews with key location decision makers from 410 of the Fortune 500 companies, Schmenner (1982) also found that taxes were a minor consideration in location decisions; tax considerations were more likely to push a company away from an old location rather than to pull it toward another. This suggests that high tax rates may encourage existing businesses to look elsewhere, but low taxes probably do little to attract new businesses.

In Farmer's investigative study (1983) on the effect of tax abatement as a deciding factor in location decisions by firms in a Reinvestment Area within the state of Ohio, he concluded that tax abatement did not serve as a significant attraction for firms to locate in the area. Schmenner (1982) also reported that 75 percent of the respondents cited a favorable labor climate as the most important factor in starting or relocating a plant. Sixty percent cited low land costs, but only 35 percent cited low taxes. He concluded that taxes affect only those location decisions where all other factors are equal. Quality of labor and its costs generally far outweigh taxes in influencing business decisions, because labor accounts for 66 cents of each dollar of value-added costs for the average industry (Smith *et al.*, 1985). This means that businesses pay an average of only one dollar in state and local taxes for every 20 dollars paid out in wages; therefore, tax considerations do not come into play unless other factors (*e.g.* labor costs) are equal. Later, Schmenner *et al.* (1987) again argued that the importance of taxes to the business location decision-makers also depends on the decision-making stage: first, the narrowing-down stage, when a firm decides which states to consider seriously; secondly, the final decision stage, when a

specific location is selected. Although states can do little to control the decision-making process in the second stage, it appears that certain negative aspects of their “business climates,” including high taxes, in some cases can keep them out of the running during the initial consideration stage. These researchers also found that firms differ in their responses to state incentives. In other words, more footloose companies that are not tied to a certain location by local factors or resources react more to specific state characteristics. For example, a travel agency or an insurance company is relatively footloose, while a coal mine or any other manufacturing plant is not.

Based on the examination of the effects of taxes and recruitment, Carlton (1983) found that energy price, firm size, availability of engineers, as well as other workers in the local labor market, and the concentration of employment in an area were important location factors. Bartik (1985) agreed with previous results that state recruitment efforts had only a small influence on plant location after studying the effects of several factors (unemployment insurance, workers’ compensation, corporate income, and property tax rates) on the location of 1,607 manufacturing plants from 1972 to 1978. Even if the corporate income tax rate influenced the location decision, a 10 percent increase in a state’s corporate income tax rate would deter only two to three percent of businesses, and other tax rates did not influence location decisions. He also stressed the importance of state infrastructure programs, such as building more roads to more plant locations, because firms reported this infra-structure factor as an important one in making location decisions. Also worth noting here is that a high level of labor unionization in a state had a negative influence on attracting plants (Bartik, 1985).

Other attempts to analyze business location decisions have used econometric techniques. In a review of research by Newman and Sullivan (1988) it was argued that econometric models call into question the earlier conclusions, based on previous survey research, that tax incentives have no bearing on location. Even if they do not claim that taxes influence location decisions of a firm, they treat the issue as an open question. Nevertheless, an econometric-based study by Kienschnick (1981) found that tax burden affected investment share for only a few industries, such as rubber and transportation. Most industries, however, appeared to be unaffected. The results indicate that tax considerations are minor for a firm's location decision, but the influence varies by industry and the size of businesses. For example, the tourism industry might consider taxes as an important factor in locating their businesses (*e.g.* over-taxation might damage the tourism industry by forcing up prices and depressing travel and tourism demand) (Seal, 1994). Fox and Murray (1990) conducted an extensive study on the effects of taxes and other programs on location and business start-up using 68,520 businesses relocating or starting up in Tennessee from 1980 to 1986. They found that high taxes were generally more important to small businesses than to large ones (having more than 50 employees). Compared to other industries, however, durable-goods producing manufacturers were discouraged by high sales-tax rates. Moreover, such factors as a highly educated workforce and access to interstate highways (infrastructure) also help to attract businesses.

Empirical studies of business location practices reveal that traditional recruitment activities which focus on tax incentives has little or no effect on business location decisions. Some researchers concentrate on manipulating labor costs rather than tax rates

to influence business decisions (Boeckelman, 1989). One common method of manipulating lower labor costs is to pass a right-to-work law prohibiting mandatory unionization. Moor and Newman (1985) studied the impact of right-to-work laws on business locations and found that such statutes only influence relations shortly after the law is initially passed but have little impact thereafter. They also found that right-to-work laws have the greatest locational impact on labor intensive industries.

2.2.3.3 Evaluation of the Effects of Business Development and Retention Programs on Employment Growth

During the 1970s and 1980s, economic development policy became an important concern for state government as they strove to stimulate employment and economy. Government industrial programs and actions directed at businesses became an important environment for businesses (Osborne, 1988; Scheible, 1991). State economic development efforts, however, mainly focused on creating jobs by recruiting and encouraging mainly large manufacturing firms by offering financial incentives (*e.g.* usually tax-related programs). Following these efforts, a research tradition has developed that evaluates the impact of environment factors on business location decisions, especially with regard to the impact of taxes. Much of the research has concluded that taxes have little or no effect on firms' location decisions. Availability of qualified labor, labor costs, energy prices, infrastructure, firm size, and unionization of labor in a state are important location factors. Although many studies have evaluated the impact of taxes on location decisions, only a few comprehensive studies have compared their influence on location decisions by different types and sizes of businesses.

Some studies have analyzed the impact of state incentives and programs on regional economic growth and employment. In an early study of the relationship between Iowa's manufacturing employment growth and state and local tax collections, Bloom (1955) concluded that there was no demonstrable evidence that high tax levies had retarded the growth of the state's economy. Thomson and Mattila (1959) also confirmed that there was no significant correlation between interstate tax differentials and employment growth in 29 studied manufacturing industries. In another study of tax influence on regional economic growth in 24 states, Struyk (1967) found a negative impact of tax structure (*e.g.* per capita property tax, per capita sales and gross receipts tax, or per capita licensing tax) on regional growth. A later study by Aki (1983) agreed with the previous results on the effect of local tax rates and public expenditures on the growth of employment in non-metropolitan counties of the northern central region of the U.S. and reported no significant relationship.

Lugar (1987) found that states often expend a considerable amount of effort on economic development without sufficient knowledge of the likely effectiveness of individual policies and programs. He believed that states were well aware of the impact of their programs but were not pursuing the goals that he attributed to them.

Dorfman (1988) contended that the most successful examples of regional development, such as California's Silicon Valley and Massachusetts' Route 128, appeared to result from luck and economic factors beyond direct governmental control, rather than from successful state policies. Sander and Schaeffer (1988) concluded,

however, that increasing funding for general education does over time lead to higher levels of state employment.

The general implication of the literature reviewed above is that state economic development policies have no effect on firms' location decisions and do not promote growth nor maximize wages and rates of employment (Boeckelman, 1989). Tax incentives do little to attract businesses, while alternative policies fail to achieve economic growth. For instance, Kienschnick (1981) stressed the stronger effects of other business environment factors, such as state initiatives in labor markets, capital markets, transportation, regulation, and the quality of life, rather than tax incentives to encourage economic development and employment growth.

A number of authors have questioned why states continue to pursue business attraction and retention programs when these programs often do not achieve the intended results (Lugar, 1987; Harrison and Kanter, 1978). One possible answer may be based upon a lack of information (Boeckelman, 1989). Another reason might be that most studies adopt simplistic assumptions about successful programs and policies. For example, Lugar's (1987) study assumes that the main concern of states engaging in economic development is to promote growth by maximizing wages and by minimizing the unemployment rate. If tax incentives are a means of satisfying the demands of existing politically powerful businesses, then the result of the policy can be successful (Harrison and Kanter, 1978). Supplying alternative assumptions can, then, lead to opposite conclusions. The point is that the evaluation of results of states' development policies and programs depends on the programs' underlying goals. Table 2-6 and Table

2-7 summarize the influences of state government programs on business location decisions and employment growth respectively.

Table 2-6 Literature Describing Impacts of State Government Programs on Business Location Decisions

State Recruitment Programs	Impact on Location Decisions	Author (Year)
Tax Incentives (tax credits, low business tax liabilities, tax reduction)	Little or no significant influence on firms' location decisions regarding start-up and expansion Tax has more pushing effect than pulling effect	Due (1961); Kienschnick (1981); Bartik (1985); Schmenner <i>et al.</i> (1987); Newman & Sullivan (1988); Boeckelman (1989)
	A favorable labor climate, quality of labor and its costs as more important factors than taxes	Schmenner (1982)
	Energy prices, firm size, the availability of skilled workers, and concentration of employment in an area are more important factors than taxes.	Carton (1983)
Right-to-Work Laws	Greater locational impact for labor intensive industries	Moor & Newman (1985)

Table 2-7 Literature Relating to the Impact of State Government Programs on Employment

Business Development and Retention Programs	Impact on Employment Growth	Author (Year)
Taxes	High tax levies have no effect on employment growth	Bloom (1955); Thomson & Mattila (1959); Struyk (1967); Aki (1983)
General State Programs, including Regulatory Relief, Tax, Debt, and Equity Programs	Regulatory relief, and debt and equity programs are associated with lower average wages, but no effect on unemployment	Lugar (1987)
General Education Funding Program	Induces higher levels of state employment	Sander & Schaeffer (1988)
State Incentives in Labor Markets, Transportation, Regulation, and Quality of Life	Strong effect on economic development and employment growth	Kienschnick (1981)
Retention Programs for Large Manufacturing Firms	No effect on employment growth → New direction for state economic programs focusing more on service and small businesses assistance	Smith & Fox (1991)

Table 2-8 presents research on impact of external environment factors, rather than government actions, on firms' decision making.

Table 2-8 Comprehensive Research on the Impact of External Environment on Business Decisions

Environment Factors	Findings	Author (Year)
A firm's innovativeness , major markets, and marketing activities	There is a relationship between the study variables (external environment) and firms' decision making	Lamont (1991)
Financial Resources	Induce firms' strategic decision making to face the difficulties	Braden (1977)
Economic, Political, and Socio-cultural Environment	Different effects on different sizes and types of firms	Kelman (1988); Porter (1980)
Taxes	Comparative impact on manufacturing and service industries (Low tax rate has positive impact on the growth of service sector employment)	Ireland, Hitt, Bettis, & Deporas (1987)

2.2.3.4 The Importance of Small Businesses in Economic Development Policy

The ability of small businesses to create and increase employment has been recognized in many studies. For instance, the majority of job creation in Tennessee came from new small businesses or expansions of existing businesses from 1979 to 1986 (Smith and Fox, 1991). Studies reveal that government-related problems (*e.g.* taxes, regulations, and cost of paperwork), cash flow, expense management, quality of labor, and promotion are major external environment factors (challenges) faced by small businesses (Peterson, Kozmetsky, and Ridgway, 1983; Franklin and Goodwin 1983; Covin and Slevin, 1989; Michigan Small Business Center, 1998; Kean, Gaskill, Leistritz, and Jasper, 1998).

Small businesses have been playing a big role in the restructuring of the U.S. economy. Historically dominant sectors, such as manufacturing, are declining in overall employment share (manufacturing employment share was 33 percent in 1950 and 16 percent in 1993) (Michigan Small Business Development, 1998). This reflects that small businesses are an important contributor of jobs, especially new jobs, innovative products and services, and flexible management strategies in increasingly turbulent economic and financial market conditions in the U.S.

In early studies, the ability of small businesses to create new jobs was affirmed. Birch (1979, 1987) in studying the specific contributions of small businesses to economic development focused primarily on the job-creation ability of small businesses. According to his study, small firms (having less than 20 workers) create between 66 percent and 80 percent of all new jobs in the U.S. Even in rural areas in the U.S. small businesses provide 88 percent of all new jobs (Popovich and Buss, 1987, 1990). From 1976 to 1990, two-thirds of the 31.1 million net new jobs in the private sector originated among small businesses which, in total, accounted for about one-half of the total private-sector employment. Of these, the firms having one to 19 employees (46.9 percent) produced almost one-half of these net new jobs (17.9 percent in firms having 20 to 499 employees and 35.2 percent in firms having more than 500 employees). Small business “births” provide two to three times as many net new jobs as the number created by small business expansion (five percent of small firms account for 75 percent of net new jobs from expansion) (Brophy, 1994, pp. 232-239). The largest creators of new jobs in 1991 were businesses with less than five employees (2.6 million jobs) followed by businesses having

50 to 99 employees. This smallest sector also created 95 percent of all new jobs in 1993. Furthermore, 71 percent of the 1.9 million new jobs created in 1993 were created by small businesses. By comparison, large firms (having more than 500 employees) had a net loss of 4.5 million jobs in same year (Michigan Small Business Development Center, 1998). The number of small businesses is also projected to increase in the future. According to the Survey of Small and Independent Business Owners in 1997, hiring plans are currently at a record high, and 20 percent of all respondents plan to expand inventories (see Table 2-9) and employment, the highest quarterly reading in 25 years (see Table 2-10).

Table 2-9 Small Business Inventory Plans (Net Percent: Increase minus Decrease, Seasonally Adjusted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	5	3	9	4	2	1	0	2	3	2	8	4
1994	4	4	2	5	7	8	5	7	9	5	10	6
1995	5	-1	-3	5	6	8	9	6	7	5	5	6
1996	2	3	6	5	10	1	4	4	6	6	3	2
1997	5	6	1	7	6	4	6	6	7	5	4	4

Source: NFIB Education Foundation. (1998). Monthly Report-November 1998. Small Business Economic Trends. p. 14.

Table 2-10 Small Business Hiring Plans (Net Percent: Increase minus Decrease, Seasonally Adjusted)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1993	8	6	6	8	7	6	4	6	7	7	11	12
1994	12	11	14	10	12	10	12	11	10	14	18	10
1995	15	18	16	14	15	13	14	16	17	12	15	15
1996	16	13	12	15	15	17	13	16	13	15	15	15
1997	17	16	11	15	16	15	18	20	18	18	20	20

Source: NFIB Education Foundation. (1998). Monthly Report-November 1998. Small Business Economic Trends. P. 6.

Small businesses' contribution to Michigan's economy is also enormous. The 15 largest job generators among small-business-dominated industries contributed almost four times as many new jobs as the 15 largest job contributors among large-business-dominated industries. In 1994, about 16,000 new businesses were started in Michigan and over 800,000 small businesses in the U.S. (Michigan Small Business Development Center, 1998). The number of firms and employees by small business category is profiled in Table 2-11.

Table 2-11 Number of Firms and Employees by Small Business Category in the U.S.

Business Size (# of employees)	Number of Firms	Percent	Total Employees	Percent
500+	13,977	0.5	43,304,946	47.0
100-499	68,338	1.0	13,143,390	14.0
20-99	439,811	9.0	17,146,411	19.0
10-19	551,229	11.0	7,386,939	8.0
5-9	941,296	18.5	6,174,730	7.0
1-4	3,036,304	60.0	5,151,143	5.0
Total	5,051,125	100.0	98,005,226	100.0

Source: Michigan Small Business Development Center at Wayne State University. Facts About Small Businesses. [Online] Available. <http://michigansbdc.org/smallbusfacts.html>, July 20, 1998.

Factors that encourage small-business-expansion decisions come not only from within a business but also from the environment in which the business operates (Bassett, 1995). In a study by Peterson, Kozmetsky, and Ridgway (1983), approximately 40 percent of the participants cited external environment factors as the major determinants of their failures, and most of them were government-related. Their results also agree with those from a study by Franklin and Goodwin (1983), which showed that the top eight problems facing management were external, including inflation, taxes, government

regulation, cost of paperwork, and quality of labor. In the same context, results of the Survey of Small and Independent Businesses also suggested that taxes (27 percent), finding qualified labor (16 percent) (about 28 percent reported at least one hard-to-fill job openings), and regulation and red tape (17 percent) were the most important problems faced by small businesses in recent years (Anonymous, 1998). According to results of a 1998 study by the Michigan Small Business Development Center, businesses having five to 99 employees cited cash flow, controlling costs, competition, supplier relationships, advertising and promotion, quality of labor, government regulation, employee productivity, and health insurance as their top ten challenges.

Lawrence, Osborn, and Glueck (1980) examined the impact of environmental challenges and strategic decision making on the short-term success of 358 large firms from 1930 to 1974. They found significant relationships between changes in the environments facing businesses and subsequent strategic decisions to face the challenges; for example, retrenchment in segments of their businesses as government regulations increase, seek mergers as competitive and ownership challenges increase, penetrate existing markets or increase production efficiency to cope with distributor excess or shortage, alter marketing strategies as socio-economic changes redistribute demand patterns, and increase R & D expenditures or production capacity to maintain technological competitiveness.

In the same context, a study of interrelationships between business environments and strategic decisions, Kean, Gaskill, Leistritz, and Jasper (1998) studied 456 small retail businesses (service industry) in 48 rural communities across 12 states and found

that small retailers respond strategically by putting more emphasis on target market (consumers) by offering innovative products and services to cope with changes. Covin and Slevin (1989) agreed that small firms should be particularly careful in dealing with environmental changes because of their limited resources and the more devastating consequences of poor managerial decisions than would be suffered by large firms. When compared with larger businesses, which have technological innovative advantages, small businesses have innovative advantages based upon acquisitions of skilled labor (Acs and Audretsch, 1988; Grimm, Corsi, and Smith, 1993).

Results from previous research imply that government should focus on small business needs (*e.g.* small businesses are particularly sensitive to taxes and expense-related issues) as well as improving the general business climate to encourage small businesses to generate new employment. The emphasis upon small businesses in government economic development policy drew its impetus from the recognition of small firms' ability to create employment (Judd, Greenwood, and Becker, 1988; Atkinson and Storey, 1994).

In the early 1980s, the Michigan state government already realized that the growth and stability of the Michigan economy is especially dependent upon the development, maintenance and growth of small businesses which are capable of overcoming the relatively high cost of conducting business in Michigan. The government also recognized that a successful strategy for the continued vitality of Michigan's durable-goods dominated economy was dependent upon the ability of Michigan to provide an environment conducive to the generation of new businesses and supportive of the

continued existence of smaller growth-oriented businesses. Governor Milliken started a pilot Small Business Development Center Program. The purpose was to develop new businesses and enhance the growth of existing small businesses (State of Michigan, 1982).

Recently, the Michigan Jobs Commission began to offer programs and financial incentives designed to encourage the economic development of small businesses in the state. In 1995, the Michigan Economic Growth Authority (MEGA) was established for the purpose of reducing taxes for firms planning to locate or expand facilities in the state (*e.g.* grant single business tax credits based on the number of new jobs created for up to 25 years). The creation of Renaissance Zones started in January 1, 1997 is one of the programs to encourage businesses to locate in Michigan. Eleven Renaissance Zones (six urban zones, three rural zones, and two former military bases) have been designated as tax-free locations for spurring the creation of new jobs and investments (Public Sector Consultants, 1998). Further programs intended to aid small businesses include: the Small Business Administration (SBA) financing program that guarantees up to 90 percent of a business loan provided by commercial lenders; the Small Business Innovation Research (SBIRs) program that provides opportunity to support small-business R & D; the Business Export Assistance program and the Government Procurement Assistance program that assist small businesses in obtaining contracts from federal, state, and local governments; and various small business assistance agencies, such as the Michigan Job Commission, the Michigan Minority Business Development Center, the Michigan Small

Business Development Center, the Small Business Association of Michigan, and the U.S. Small Business Administration (Michigan Small Business Development Center, 1998).

Table 2-12 summarizes the problems in external environment that small businesses face.

Table 2-12 Literature Relating to External Environment Problems of Small Businesses

Problems of Small Businesses	Author (Year)
Government Related	Peterson, Kozmetsky, & Ridgway (1983)
Inflation, Taxes, Government Regulation, Costs of Paperwork, Quality of Labor	Franklin & Goodwin (1983)
Taxes, Finding Qualified Labor, Regulation, and Red Tape	Anonymous (1998)
Cash Flow, Controlling Costs, Competition, Supplier Relationships, Advertising/ Promotion, Quality of Labor, Government Regulation, Employee Productivity, and Health Insurance	Michigan Small Business Development Center (1998)

Table 2-13 shows studies of decision making by small businesses to respond external environment.

Table 2-13 Comprehensive Research on Small Business Decision Making

Problems	Decisions	Author (Year)
Hostile Economic Environment and Competition with Large Firms	Concentrate on the target market, innovative products and services	Kean, Gaskill, Leistritz, and Jasper (1998)
Changes in Population and Purchasing Power	Emphasis on the (target) market and product segmentation	Covin and Slevin (1989)

2.2.3.5 Hospitality/Tourism and Economic Development Programs

Although Michigan's economy has been dominated by the automotive industry, this is not the only major industry in the state (Fosler, p. 91; Kutscher and Mark, 1983;

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Cary, Fulton, and Hymans, 1996). In the 1870s and 1880s, agriculture and lumber were the state's largest industries. These industries, however, have been superseded by tourism and chemicals. As the lumber industry was dying out and the railroads faced the obvious loss of business, the railroads financed large resort hotels on the Upper Peninsula and the Northern Lower Peninsula (*e.g.* the Grand Hotel on Mackinac Island), giving tourism and the service industry a major boost. By contrast, some towns that failed in the transition from lumbering to tourism quickly became ghost towns (Fosler, 1988).

As one of the fastest-growing service sectors, the tourism and hospitality industry also creates jobs and promotes regional economic development. U.S. earnings from both international and domestic tourism were 260 billion dollars in 1986, and payroll income generated by tourism was 58 billion dollars (Edgell, 1988; Ticknor, 1988). The American tourism industry is second only to health services in private employment in the U.S. and is ranked as the first, second, or third largest industry sector in 39 states (Heller, 1992). Another sign of this fast growing sector is that, "demand for airline tickets for U.S. domestic travelers in 1998 was up 3.5 percent over last summer's record breaker and Americans are expected to shell out more than half a trillion dollars on vacation travel and tourism this year" (ABC News, August 4, 1998).

Researchers also have discerned economic benefits of rural tourism development and have begun to explore tourism as a tool for the development of both rural and urban communities (Lewis, 1996). Edgell (1988) argues that the growth of tourism and travel can benefit such interrelated areas as construction and maintenance of tourism facilities, transportation, retail sales, recreation facilities, lodging, restaurants, and other related

hospitality services by providing job creation opportunities and urban and rural area economic development (*e.g.* employing tourism as a method for developing inner cities and new communities). Bonnett (1993) also supports the importance of tourism as an economic development tool and as a basis for entrepreneurial activity to draw the outside market into the local economy. As more tourists visit a region, more opportunities can be created for business development and jobs in hotels, restaurants, and various hospitality businesses. For example, U.S. travel and tourism posted a record-setting 16.8-billion-dollar trade surplus in 1991 and 15.3-billion-dollors in 1995, with prospects for increased spending by foreigners in the coming years (Gatty, 1992; WTO, 1997).

Research on the economic impact of tourism has been conducted as an effort to understand the advantages and disadvantages of tourism to a community. In a cost-benefit study of tourism (using the monetary benefit-cost model), Ohadweh (1983) found that tourism provides significant employment creation and income generation possibilities and that tourism benefits surpass the costs in metropolitan areas, such as Portland, Oregon. Schneider (1993), however, raised a concern about adopting tourism development in agricultural communities without any appraisal of the town's ability (inventory) to make tourism successful. Tooman (1995) also raised the same caution about adopting tourism as a means of rapid economic development. A study examining the correlation between tourism infrastructure components and economic impacts of tourism in rural counties in Indiana might be an answer for those concerns. Nadkarni (1995) found that three of the attraction components (culture, nature-related tourism component, and amusements and outdoor recreation component) are positively correlated

with the tourism economic impact, that is, tourism expenditures and direct impact on employment, resident earnings, and state and local government revenues. In a study on the relationship between tourism and rural community economic development in Montana, Moisey (1997) suggested that local initiatives are the most effective strategy to provide more immediate economic gains while minimizing potential costs (*e.g.* social costs).

In recognizing the economic benefits of tourism, both federal and state governments viewed tourism as an important urban and rural economic development strategy (Seal, 1994; Lankford, 1997). The demands for rural tourism also grew as a result of domestic and international tourists who venture out to see and experience rural America (Edgell and Harbaugh, 1993). As a result, an increasing number of state governments have adopted tourism as an efficient tool for keeping rural communities economically viable (*e.g.* Michigan's rural tourism areas in traditionally agriculture regions). For example, the Wyoming state government recently announced an aggressive new strategy having the major goals of creating jobs and increasing tourism to boost their economy (Nelson, 1998).

In realizing the increasing role of state tourism policy and tourism related state agencies, Van Hoof (1996) found that the state office of tourism is an important state organization in charge of implementing state tourism policies. Fagan and Longino, Jr. (1993) stated that communities depending solely on manufacturing industries for economic growth and development might be missing opportunities to better succeed with their efforts and stressed the contribution of the tourism and retirement industries on

economic growth in rural areas. Economic planners encourage the utilization of underdeveloped rural resources for tourism to replace low- to negative-growth industries, because the tourism industry easily fits into the infrastructures of these rural communities. For instance, Kansas City linked with nearby rural areas (historic Harrisonville, the Lexington Mountain area, and historic and cultural Kansas City Hub) to develop tourism jointly (Edgell and Harbaugh, 1993).

Furthermore, there are many examples of utilizing tourism as a means of economic development to create more jobs and revenue. Johnson County, Tennessee, is one of the successful examples of rural tourism as an important tool of economic development for creating jobs and bringing in new businesses. Johnson County consistently suffered from high unemployment until the 1980s. This region, however, proves that rural areas can integrate innovative tourism programs with other efforts to successfully achieve economic development (Edgell and Staiger, 1992). Since Connecticut started promoting itself as a vacation spot that has many convention sites and weekend getaways, the benefits have been substantial. Tourists in Connecticut spent about 2.5 billion dollars (only 685 million dollars in 1977) on gasoline, food, hotels, and admission fees, and about 50,000 residents had tourism related jobs in 1985. The state estimates that every two dollars spent on tourism generates between three and five dollars in related industries. Further, tax revenues from tourism are 150 million dollars a year (Hall, 1986). Upper Little Tennessee Valley had begun to use tourism as a means of economic growth in the 1990s, because residents found tourism provided the sole opportunity for escaping the poverty which a half century of extractive growth could not

eliminate. Their growth decreased, however, because neighboring counties were adjacent to a National Park (Taylor, 1996).

The failure of Illinois tourism development, based on riverboat casino gambling, to revitalize a community's economy, particularly its tourism industry, provides insight to policy makers considering methods of tying legalized gaming licenses with capital investment in order to accomplish development goals (Truitt, 1996). South Carolina's tourism is the state's second largest industry, providing more than 272,000 jobs and generating 428 million revenue dollars. This success is predicted to continue in the future because of carefully planned strategies: (1) implementing an aggressive marketing strategy that reaches beyond traditional advertising; (2) focusing on business development as a way to create more products and therefore more capital for investment; (3) generating economic growth in rural areas, while safeguarding traditional values and lifestyles; and (4) using technology to stay ahead of competition (McKown, 1995). These strategies indicate the future direction that the tourism industry and policy makers should consider if there is to be continued success in building regional economies.

When considering the growing importance of the hospitality/ tourism industry in the U.S. economy, some questions should be addressed as to whether or not the hospitality/ tourism and service industries are different from other industries in perceiving elements of business environments, including state government policies and what the appropriate policies for the tourism and hospitality industry should be.

Little research, however, has addressed these questions nor identified external environmental problems that the hospitality/ tourism industry faces. Some authors have

identified an adequate location for tourism development as important for maximizing the positive impact of tourism development. The location of a major destination attraction requires an adequate market within 100 to 200 miles having a population with sufficient disposable income, a large site, excellent access to the site, appropriate zoning, available supply of part-time labor, and acceptable weather. These elements provide a favorable external environment to tourism businesses as well (Tuttle, Baier, and Alexander, 1986). In an assessment report of tourism and its environment, tourism, including the hotel industry, was shown to be influenced negatively by savings and loan association failures, overbuilding, the recession, labor availability, taxes, and government regulations (Hasek, 1991). Even if the results above provide important insights to policy makers, these findings are not comprehensive enough to address the different environment factors that influence the hospitality/ tourism industry.

Chapter 3

3. RESEARCH METHODS

This chapter outlines and discusses the research procedures and a variety of different methods that were employed to address this study's research objectives and hypotheses. The overall research process is presented in Figure 3-1.

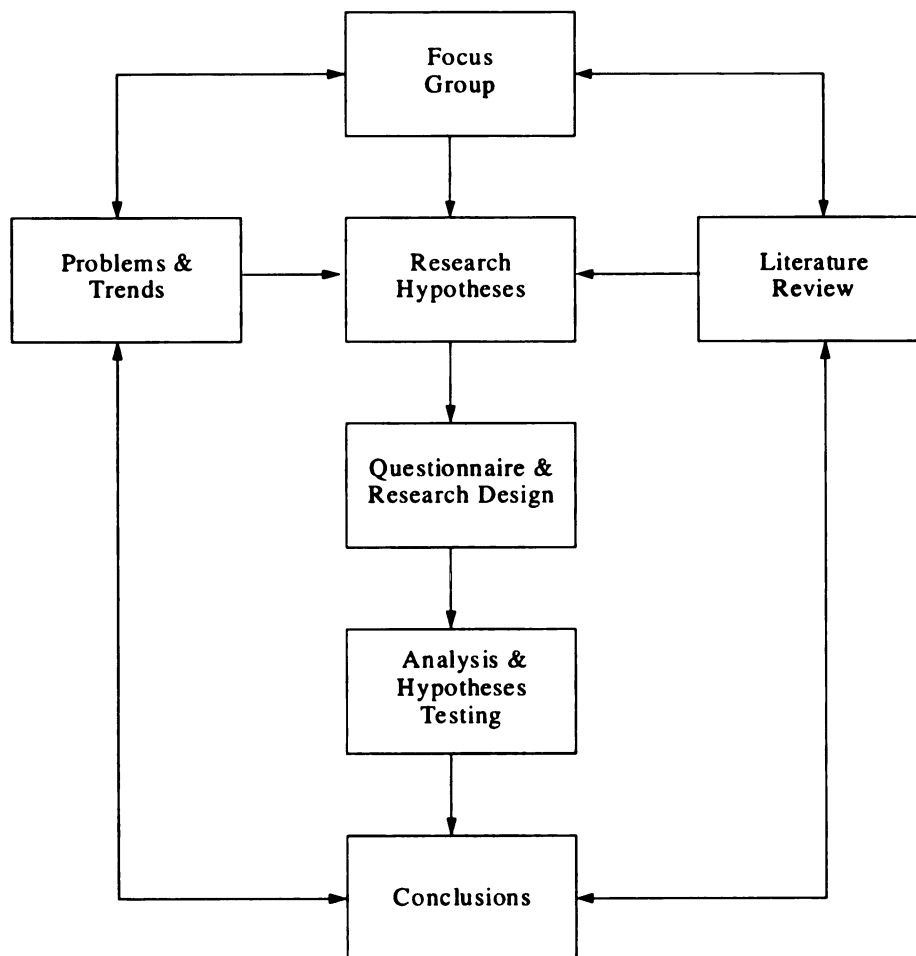


Figure 3-1 The Overall Research Process

3.1 Research Design and Data Collection

The data used in this research were collected by the Tax Policy Center at Michigan State University. Data were collected through focus-group sessions and through a mail questionnaire. The methods employed to conduct the focus groups and the mail survey are described below.

3.1.1 Focus Groups

Focus group interviews were conducted by staff members of the Tax Policy Center at Michigan State University in June, 1995. The businesses used in the focus-group interviews were identified on the "The American Business Lists" that were provided by a division of American Business Information, Inc. The objective of the focus groups was not to gather information that could be generalized to all businesses in Michigan. Rather, the goal was to: (1) determine factors (*e.g.* regulations, taxes, consumer demand, and labor market) that may influence business decisions; (2) determine perceptions relating to whether or not government requirements hurt or benefit their businesses; (3) understand factors that contribute to how business owners and managers perceive state agencies and services; (4) gather the information to help formulate research hypotheses; and (5) use the information to develop a questionnaire to be mailed to a state-wide stratified cluster sample of primary, secondary, and service businesses.

The results of the literature review, especially literature dealing with attitudes and opinions of businesses toward state government agencies and policies, provided the basis

for three primary questions that framed the focus group interviews. The focus group participants were asked: (1) what are the things that state government programs, officials and agencies do, have done, or may be planning to do, that do or can help you to successfully manage a business?; (2) what are the things that state government programs, officials, and agencies do, have done, or may be planning to do, that make it difficult to manage a business?; and (3) what should state government do to change those things, or put another way, what would you change so that state government could better serve the needs of the business community?

Focus groups were conducted with business owners and managers in three key geographic regions of the state: the northern lower peninsula (Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Chippewa, Crawford, Emmett, Kalkaska, Luce, Mackinac, Montmorency, Oscoda, Otsego, and Presque Isle), the eastern part of the upper peninsula, and the central western portion of the state (Allegan, Barry, Calhoun, Eaton, Ionia, Kalamazoo, Kent, Mecosta, Montcalm, Muskegon, Newaygo, Ottawa, and VanBuren), including the greater Detroit area (Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne).

The initial plan was to have 12 businesses participate in each of the three focus group sessions. Businesses in each of the three regions were then stratified by Standard Industrial Codes (SIC) and by number of employees. American Business Information, Inc. generated a stratified random sample of businesses for each region. The sample was comprised of one business representing firms that employed one to nine employees and firms having 10 to 19 employees, respectively, for each of the three SIC codes

(Agriculture, Manufacturing and Services). Two businesses were selected to represent businesses in each SIC code that employed 20 or more employees.

Twenty-one businesses actually participated in the focus group sessions as Table 3-1 shows. The focus groups consisted of eight participants from agriculture-related businesses; five of these were businesses of 20 or more employees. Twelve service businesses participated. Half were businesses that employed 20 or more employees. Only one small manufacturing business participated. Clearly, manufacturing businesses were underrepresented even though the 12 manufacturing businesses responded positively to the invitation to participate in the focus group sessions.

Table 3-1 Industries and Size of Business that Participated in the Focus Group

Industry	SIC	Number of Employees		
		1-9	1-19	20+
Agriculture	01-09	1	2	5
Manufacturing	01-19	1	0	0
All Services	70-89	4	2	6

A qualitative content analysis was performed on the transcripts of the three focus groups. There was no separate analysis by geographic region or by SIC category. The purpose of the content analysis was to summarize key perspectives and points of view that could be included in the state-wide questionnaire. Quotes that represented these perspectives and points of view were captured to provide additional insight that could be helpful in drafting the questionnaire.

By and large, the focus group participants did not view government as being helpful in terms of the operation of their businesses. They were more prone to identify

ways that government negatively impacted their businesses, rather than being helpful. Most commented that complying with regulations was costly. Some state regulations, however, were seen as beneficial to businesses. Most participants agreed that regulations were often a double-edged sword, because they were seen to protect the public and standardize the way business is done in the state. The businesses expressed positive acknowledgment for various incentives and grant programs. There was also anxiety that some agencies or programs that were helpful to businesses had been eliminated or scaled back.

Certain regulations (*e.g.* pesticides), agencies (*e.g.* MIOSHA and DNR), and laws (*e.g.* polluter pays and motor carrier) were considered to be disincentives for business growth. There was also frustration that many times businesses are required to comply with the interpretation and perception of state officials and inspectors, rather than with the law itself. This complicates and frustrates compliance. Small businesses argued that the amount of compliance- and application-related paperwork is too burdensome and a barrier to expansion. Taxes (*e.g.* payroll, SBT, and Federal Unemployment Tax Administration) also emerged as a concern among businesses. Some felt that too many taxes and over-taxation stifle growth, while others believed that there were too many different taxes and would prefer a flat tax. Labor and employment issues were a major concern across different types and sizes of business. MESC (Michigan Employment and Security Commission) and Department of Labor were perceived as being biased on the side of employees, and not always fair to employers.

The participants also mentioned poor quality of service provided by government agencies (*e.g.* hard to talk to a person, time involved in finding the right contact, incompetent or uncaring employees, and no business-orientation) as a significant problem.

Participants felt that state agencies need to be more service- or business-oriented (*e.g.* government needs to market itself; a grievance procedure against state employees needs to be established; and faster response time is necessary). Businesses also believed that government should be more innovative in its perspective and approach to serving the business community.

3.1.2 Data Collection Method: The Mail Survey

A mail questionnaire was administered during the summer of 1995 by the Tax Policy Center at Michigan State University. The results and issues that emerged in the focus group sessions guided the development of the questionnaire in the state-wide survey.

3.1.2.1 Instrumentation

The questionnaire was designed to collect three primary types of data: (1) perceptions of the importance of external business environment factors (economic, legal and government, and consumer and labor markets as business environment factors) in hiring decisions; (2) perceptions and satisfaction levels relating to government services provided by various state agencies; and (3) the characteristics of responding businesses

(*e.g.* business sectors, ownership, length of business establishment, business seasonality, and number of employees) and whether or not the business was part of the tourism industry (percentage of total tourist dollars of total sales). A copy of the survey questionnaire is included in Appendix B.

3.1.2.2 Operational Definitions and Measures of the Perceived External Environment

The operational definitions and measures of the variables used for testing the research hypotheses are presented here. Specifically, operational definitions and measures associated with the external environment variables that impact firms' hiring decisions, the importance of the influence of those variables to firms' hiring decisions, and different business sizes and types are presented. The method of measuring the satisfaction level with various state agencies, state government services, and state employees' expertise are also described.

In this study, the external environment variables mainly focus on: (1) state-government-related variables, such as laws, regulations, taxes, paperwork, and employment-related regulations (*e.g.* unemployment insurance, workers' compensation, healthcare, and unions) and (2) market-related variables, such as labor supply and consumer demand for the products and services.

The impact of these variables on firms' hiring decisions are measured by the perceptions of business owners and managers. The influence of external environment variables are based on the subjective evaluation of respondents (perceived environment) in terms of the impact that the variables have on their firms' hiring decisions. The

relative importance of the variables to businesses is defined as “the extent to which the owners and managers of the businesses perceive external environment variables that influence the firm’s decisions to hire more full-time employees.” The extent to which the variables influence the firm’s hiring decisions was assessed by asking respondents about: (1) state labor laws and regulations; (2) state regulations that govern workplace safety; (3) state taxes; (4) access to credit; (5) labor unions; (6) workers’ compensation; (7) the paperwork required by state government; (8) access to qualified labor; (9) the start of the school years prior to labor day; (10) unemployment insurance; (11) consumer demand for the products and services offered by the business; and (12) the cost of benefits (*e.g.* healthcare). Importance was measured using a five-point scale.

Respondents were asked to use the five-point scale to express their degree of satisfaction with the following 12 state agencies with which they may have had contact during the preceding 12 months: (1) Michigan Jobs Commission; (2) Michigan Department of Natural Resources; (3) Michigan Employment Security Commission; (4) Michigan Department of Transportation; (5) Michigan Occupational Safety and Health Agency; (6) Michigan Travel Bureau; (7) Michigan State Police; (8) Michigan Department of Social Services; (9) Michigan Department of Agriculture; (10) Michigan Department of Commerce; (11) Michigan Department of Treasury; and (12) Michigan Department of Education.

General satisfaction with state government services and with state employees’ expertise was also measured by assessing agreement and disagreement (on a five-point scale) with the following statements: (1) “The quality of services offered by state

government meets the needs of this business;”(2) “State government needs to market itself better so that this business will know more about the products/ services government has to offer;” and (3) “State government employees do not know enough about this type of business to be of any help.”

3.1.2.3 Operational Definition of Business Size

In this study, businesses were stratified into three groups for sampling purposes; they are: businesses having one to nine, 10 to 19, and 20 or more employees in terms of “full-time equivalents”(FTEs). As prescribed by the Michigan Employment Security Commission, the number of FTEs is calculated by taking the total number of hours worked by all of the employees of a business and then by dividing that number by 35 working hours a week. All the businesses in the sample are categorized into three FTE groups: one to nine, 10 to 19, and 20 or more.

3.1.2.4 Population and Sample

The population for the study is all Michigan "for-profit" firms in existence in 1995. Non-profit firms and government organizations were excluded from the study population, because this study focuses on private and profit-oriented firms' decision making that strategically copes with external environments (*e.g.* cost-effective strategies).

A stratified (by sizes) cluster (by regions) sampling technique was used to select a sample of businesses of different sizes in different geographic regions. The sampling frame consisted of 3,000 Michigan businesses compiled from the American Business

Lists provided by a division of American Business Information, Inc. Stratification categories are defined as businesses having one to nine, 10 to 19, and 20 or more employees measured in terms of “full-time equivalents”(FTEs). Clusters are defined by six different geographic regions: Upper Peninsula, Northeast, Northwest, Southwest, Southeast, and Metro Detroit area. The sampling strategy produced a representative and adequate number of responses within each geographic and size strata to permit subsequent analysis (Appendix D).

3.1.2.5 Pretest and Survey Administration

The questionnaire and cover letter were pre-tested by sending them first to 10 businesses in the East Lansing area. The purpose of the pretest was to make sure that the questionnaire was easy to complete. The owners or managers of each of the businesses completed the questionnaire and provided additional comments about wording, format, and instructions. For the most part, the businesses that participated in the pretest felt that the cover letter clearly communicated the purpose of the research, and few respondents encountered any difficulty in completing the questionnaire. Based on recommendations from the pretest, additional open-ended questions were incorporated in Sections Two and Three of the questionnaire.

A package consisting of the cover letter, questionnaire (Appendix B), and a postage-paid return envelope was mailed to the 3,000 businesses that comprised the stratified cluster sample acquired during the summer of 1995. In most cases, the envelope and cover letter were addressed to a specific, named, contact person within the

organization. These people were owners and/ or managers of the businesses. In the event that a contact person could not be identified, the envelope and cover letter were addressed to the “owner/ manager.” The cover letter stressed that the study was endorsed by the Tax Policy Center at Michigan State University and by the Michigan Chamber of Commerce.

3.1.2.6 Response Rate

In order to maximize response rate and to reduce non-response bias, a reminder post card (Appendix C) was mailed one week after the questionnaire. The post card thanked those who had already completed and returned the questionnaire and encouraged others to also respond. Approximately two weeks after the post card reminder was mailed, those who had not yet responded were sent a second questionnaire and a letter that urged them to participate.

Of 3,000 questionnaires mailed, a total of 2,899 questionnaires were successfully delivered. The remaining 111 questionnaires did not reach the businesses and were returned because of address changes or incorrect addresses. Approximately one-third (968 businesses, 33.4 percent) of the 2,899 Michigan businesses completed and returned questionnaires. Thirty-three percent of respondents were presidents, 23 percent were owners, 15 percent were (general) managers, and the remaining were CEOs, VPs, Directors, etc.

3.1.3 Data Preparation

The returned questionnaires were dated and checked for completeness. After examining the 968 returned questionnaires, a total of 953 questionnaires were qualified for further data processing and analysis. Fifteen questionnaires were eliminated from further processing due to significant incompleteness. SPSS for Windows Release 6.3 was employed to enter data. After the completion of data entry, data cleaning was performed by checking each variable's frequency distribution. Obvious coding errors were corrected by checking the original questionnaire or re-coding.

Respondents were asked to: (1) identify their business sector (Question 2 in Section Six) and (2) indicate whether or not the business was part of the tourism industry (Question 8 in Section Six). The problems with these questions were that businesses could identify more than one business sector (e.g., fishing, wholesale/retail), and that they could identify themselves as tourism businesses based on their perception of the amount of their revenues related to tourism and tourists. For example, a commercial fishing business that sells both wholesale and retail could classify themselves as a tourism business if the majority of their wholesale business is with resorts and hotels, and/or the majority of their retail sales are to tourists. Although this may be conceptually correct, it differs significantly from Standard Industrial Classification (SIC) designation of business sectors and tourism businesses. By checking the original questionnaires using the descriptions of the business provided by respondents, along with the business sectors they checked, some businesses' self classifications were re-coded into more SIC consistent categories. For purpose of the analyses, businesses were only classified as tourism

businesses if they provided services or products to tourists, not if they provided products and services to tourism businesses.

After this process, the businesses were categorized into six industry groups: (1) primary industry, which included agriculture, fishing, mining, and forestry; (2) secondary industry, which included manufacturing and construction; (3) wholesale/retail; (4) general services, which included finance, insurance, real estate, transportation, and communications; (5) personal and managerial services, which included legal, medical, repairing, and managerial services; and (6) hospitality/tourism industry, which included lodging, food, recreational, and tourism.

3.1.4 Data Analysis

To obtain an overall profile of the sample, descriptive statistics were performed. This analysis provides a picture of the perceptions of the importance of external environment factors including: (1) the influence of state government policies in hiring decisions among Michigan businesses and (2) business' level of satisfaction with state agencies and agency services. The descriptive statistics also provide profiles of the responding businesses in Michigan (*e.g.* business sector classification, ownership type, duration of business establishment, business seasonality, and number of full-time-equivalent employees in the business).

One of the main hypotheses of this study is that different types and sizes of businesses differ in terms of the influence of various environmental factors, including state government policies, on their hiring decisions. Also, the degree of satisfaction with

state agencies and their services is assumed to be different for various types and sizes of businesses. For the purpose of analysis, businesses were classified into three groups: (1) “small” businesses having less than 50 total employees; (2) “medium-sized” businesses having 50 to 100 total employees; and (3) “large” businesses having more than 100 total employees. This breakdown provided enough responding businesses in each size category for statistical analyses. Although the sampling was based on different size categories: (1) one to nine; (2) 10 to 19; and (3) more than 20 employees, there is no generally accepted definition of small, medium, or large businesses. The sampling was designed to produce enough small businesses to allow statistical comparisons across “different size of businesses” categories. For the comparisons across “different types of businesses” category, the six re-coded industry sectors were used.

Since the external environment variables were drawn from the results of focus group sessions, there might be redundant information for a number of environment variables. Thus, it is useful to conduct further analyses to determine the underlying structure of the variables. According to the Review of the Literature, external environment variables are conceptually classified into two groupings: (1) a state government-imposed cost of doing business grouping that consists of state labor laws and regulations, state workplace safety regulations, state taxes, workers’ compensation, the paperwork required by state government, unemployment insurance, and the cost of benefits (*e.g.* healthcare) and (2) a market environment grouping that includes such variables as access to qualified labor and the consumer demand for the products and services offered by the business. The latter grouping represents labor- and consumer-

market-related variables. These two groupings of external environment variables are based on the Review of the Literature, the results of correlation testing among 12 external environment variables examined in this study, and reliability tests of those groupings (factors).

Table 3-2 shows the results of correlation testing among 12 external environment variables that were used in this study. Such variables as access to credit, labor unions, the start of the school year, access to qualified labor, and consumer demand show low correlation with state-government-related variables, such as state laws and regulations, safety regulations, state taxes, workers' compensation, paperwork required by state government, unemployment insurance, and the cost of benefits. The results indicate that these variables are different sets of variables. In order to test if these factors were reliable, reliability tests were conducted. The alpha value of seven state-government-related variables is 0.92. Furthermore, the alpha value of market-related variables, such as access to qualified labor and consumer demand is 0.54. Since the alpha values of these factors are greater than 0.5, the variables in each grouping correlate with each other and can be considered reliable.

A factor analysis was performed to determine if the factors produced by factor analysis were consistent with these two conceptual groupings. Factor analysis was conducted to identify groups of variables that have shared common variance. The factors are mutually independent without redundancy (Johnston, 1991). These factors were then used to test the hypothesis that different types and sizes of businesses are influenced by different factors in their decision making (*e.g.* hiring additional full-time employees).

A principal-components analysis method that extracts the factors from the correlation matrix in serial order of eigenvalue size was employed as an initial factor extraction. In order to decide the number of factors to extract, the following four criteria were applied: (1) unit eigenvalue (>1); (2) scree test (plotting the eigenvalues against the number of factors); (3) variance explained to account for as much of the variance as possible; and (4) interpretability of factors. The reasons for using the criterion of interpretability of factors are that: (1) statistical considerations alone are not entirely satisfactory and (2) in most instances the meaning or interpretability of the retained factors plays an important role. Then, the varimax rotation procedure was employed. This rotation technique produces some high loadings and some near-zero loadings on each

Table 3-2 Correlation among 12 External Environment Variables

Pearson Correlation	Laws & Safety Regul.	Safety Regul.	State Taxes	Access to Credit	Labor Unions	Workers' Compens.	Paper Work	Access to Qual. Labor	Start of School	Unempl. Insurance	Consumer Demand	Cost of Benefits
Laws & Regulations	1.000	.709	.618	.363	.383	.644	.636	.263	.215	.606	.143	.483
Safety Regulations	.709	1.000	.565	.378	.398	.565	.587	.273	.199	.499	.197	.411
State Taxes	.618	.565	1.000	.442	.272	.199	.499	.281	.187	.690	.177	.513
Access to Credit	.363	.378	.442	1.000	.285	.385	.419	.266	.175	.376	.235	.333
Labor Unions	.383	.398	.272	.285	1.000	.402	.371	.244	.183	.321	.162	.331
Workers' Compensation	.644	.565	.199	.385	.402	1.000	.693	.347	.197	.769	.193	.584
Paperwork	.636	.587	.499	.419	.371	.693	1.000	.289	.241	.663	.172	.513
Access to Qualified Labor	.263	.273	.281	.266	.224	.347	.289	1.000	.200	.330	.370	.334
Start of School Year	.215	.199	.187	.175	.183	.197	.241	.200	1.000	.204	.127	.129
Unemployment Insurance	.606	.499	.690	.376	.321	.769	.663	.330	.204	1.000	.191	.624
Consumer Demand	.143	.197	.177	.235	.162	.193	.172	.370	.127	.191	1.000	.241
Cost of Benefits	.483	.411	.513	.333	.331	.584	.513	.334	.129	.624	.241	1.000

factor, by simplifying the columns of a factor matrix (Nie *et al.*, 1975). The rotation procedure is also necessary to identify variables as approximations to simple structure when there are groups of variables with a lot of shared common variance (Johnston, p. 163). The results of the factor analysis will be discussed in the next chapter.

Mean scores for each factor by different types and sizes of businesses were then analyzed using the Analysis of Variance (ANOVA) test. An independent T-test was employed to test if there was a non-zero mean difference between any two types of businesses in terms of each external environment factor. The same technique was used to examine if each size of business was influenced differently by different environment factors or variables.

As another means of testing the hypotheses, the ANOVA test was used to compare mean differences of each factor for different types and sizes of businesses. The ANOVA test was also used to test degree of satisfaction of different types and sizes of businesses with various state agencies, quality of their services, and the expertise of state-agency personnel. Figure 3-2 summarizes the framework of the statistical analyses used in this study.

All the statistical analyses were performed with the Statistical Package for the Social Sciences (SPSS). SPSS v. 7.5 was also employed for data modifications and transformations, as well as for other statistical tests used in this study. Throughout this study, a 0.05 level of statistical significance (α level) was used for testing hypotheses.

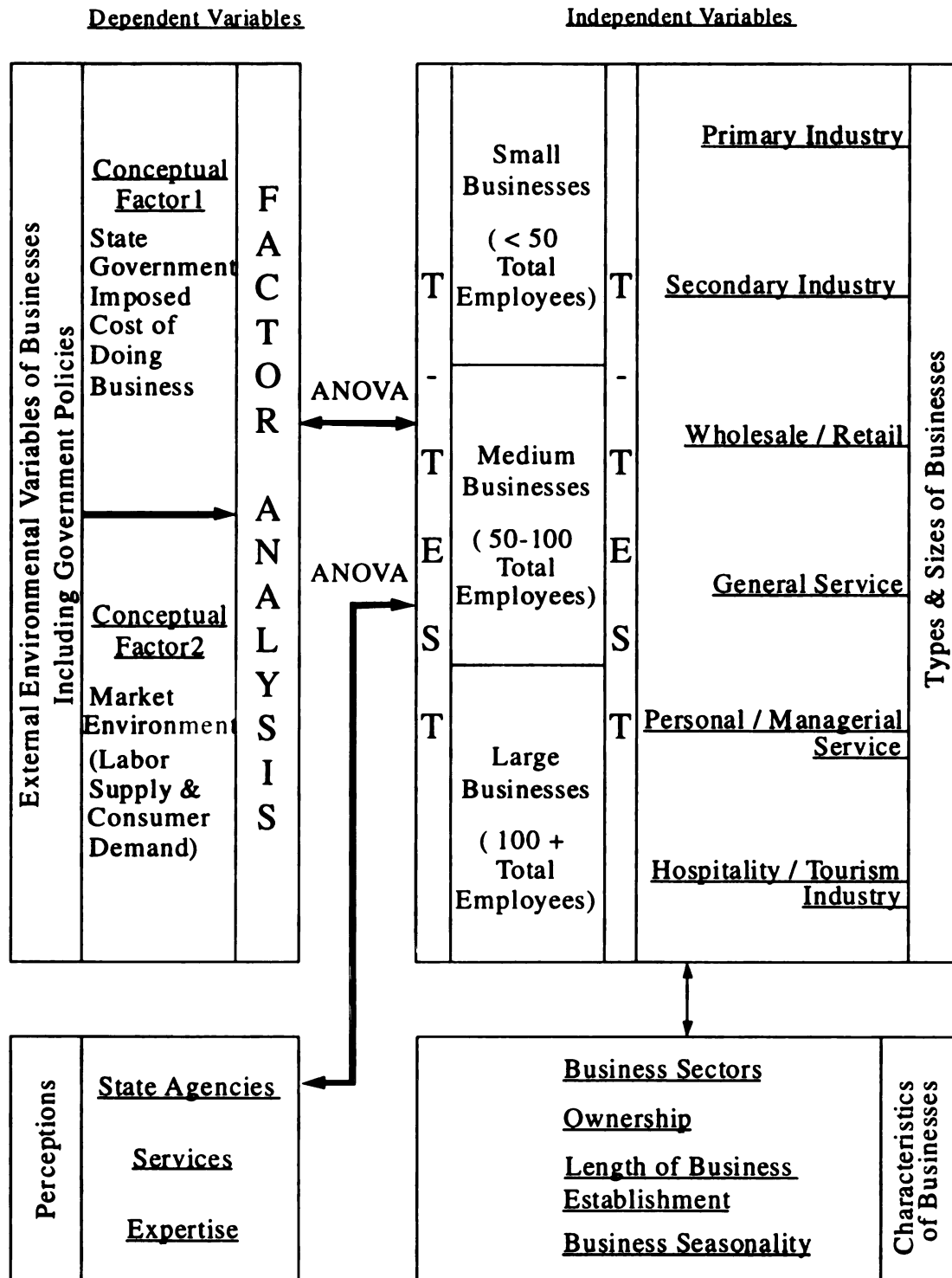


Figure 3-2 Overview and Sequence of the Statistical Analyses in This Study

3.1.5 Limitations of the Data

First, manufacturing businesses were under-represented in the focus group sessions; however, the results of the focus groups were only utilized to design the questionnaire.

Second, the questionnaire was not designed with all of the specific objectives and hypotheses in mind that constitute the focus of this study. The data produced are, in effect, secondary data; and, like most secondary data, they are less than ideal for some of this study's purposes. Even if this researcher assisted the research process except the focus group sessions, the questionnaire and research were designed to fulfill the objectives of other participants in this project, such as the Michigan 2000 Foundation and the university Research Director. Some variables in the questionnaire, therefore, could not be used for this research.

Third, the size of businesses sampled in this study was skewed toward small businesses because of the original sampling scheme that stratified size into categories of one to nine, 10 to 19, and more than 20 employees. There is no complete list of the number of different-sized businesses that are sampled. As a result it was impossible to assess the representativeness of the mail questionnaire returns, or to assess the extent and direction of non-response bias.

Fourth, since the respondents could select more than one sector, type of business, that applied to their businesses, it was not always clear into which sector to classify each business. Even if data were re-coded into six industry sectors after reviewing the description of each business that the respondents provided and the business sectors they

checked (multiple choices), critics might question this researcher's judgment in classifying the businesses.

Chapter 4

4. RESULTS

This chapter presents the results of various data analyses obtained from implementing the previously described methods. The chapter consists of three parts: (1) a descriptive analysis of the responses to the mail survey; (2) results from factor analysis conducted to identify external environment factors of businesses before conducting the hypotheses tests; and (3) a statistical analysis implemented to test each of the six hypotheses.

4.1 Descriptive Analysis of the Sample

The descriptive analyses were performed on data generated from the 953 useable questionnaires. All the questionnaires were returned during the summer of 1995.

4.1.1 General Characteristics of Responding Businesses

The number and percentage of small (less than 50 employees), medium (51 to 100 employees) and large businesses (more than 100 employees) that returned a mail questionnaire are shown in Table 4-1. Since the sampling scheme was orientated toward small businesses, 82.7 percent of the responses were from this target group (Table 4-1). The distribution of responses generally reflected the size distribution of Michigan businesses in 1995 (La Lopa and Holecek, 1996). The mean number of employees of the businesses that responded to the survey is 94 employees (mean: 93.5). Businesses having

more than 100 total employees were classified as large businesses and businesses having less than 100 total employees are classified as small businesses if they had less than 50 employees and medium sized-businesses if they employed 51 to 100 employees.

Table 4-1 The Size—Total Number of Employees—of Businesses that Returned a Mail Questionnaire

Business Size	Frequency	Valid Percent
Small Businesses	666	82.7
Medium Businesses	59	7.3
Large Businesses	80	9.9
Subtotal	805	100.0
Missing Cases	148	
Total	953	

Note: Small Businesses = less than 50 employees; Medium Businesses = 50 to 100;
Large Businesses = more than 100 employees

The business sectors represented by responding businesses are shown in Table 4-2. The percentage exceeds 100 percent, because respondents were able to select more than one sector in classifying their businesses, for example, service and retail. Only 7.4 percent of the participating businesses were in primary industry. Wholesale and retail businesses comprised a large portion of the respondents (42.7 percent). More than 50 percent (53.8) of the businesses classified themselves as service-related businesses, including finance, communications, transportation, insurance, real estate, and hospitality. Many of the businesses that selected more than one classification chose the service sector as one category. To better distinguish the types of service businesses, the 513 businesses that included themselves as part of the service sector were re-coded with more specificity

(see Table 4-3). They are: (1) general services, including transportation, finance, communications, insurance, and real estate (14.2 percent); (2) managerial/personal services, including legal, medical, managerial, and personal care services (25.0 percent); and (3) hospitality/tourism, including recreation, food, lodging and travel-related businesses (11.5 percent).

**Table 4-2 The Number of Different Types of Businesses
that Returned a Mail Questionnaire**

Business Sectors	Frequency	Percent
Agriculture	47	4.9
Forestry	11	1.2
Mining	5	.5
Fishing	8	.8
Manufacturing	152	15.9
Construction	102	10.7
Retail Trade	293	30.7
Wholesale Trade	114	12.0
Transportation	71	7.5
Finance	47	4.9
Communications	37	3.9
Insurance	26	2.7
Real Estate	45	4.7
Services	513	53.8
Total	1471	154.2

Table 4-3 The Number of Businesses in Re-Coded Industry Sectors that Returned a Mail Questionnaire

Type of Business	Frequency	Percent	Valid Percent	Cumulative Percent
Primary Industry	19	2.0	2.0	2.0
Secondary Industry	210	22.0	22.5	24.6
Wholesale/Retail Services	231	24.2	24.8	49.4
General Services	132	13.9	14.2	63.5
Managerial/Personal Services	233	24.4	25.0	88.5
Hospitality/Tourism Industry	107	11.2	11.5	100.0
Subtotal	932	97.8	100.0	
Missing Cases	21	2.2		
Total	953	100.0		

The form of ownership of the responding businesses is presented in Table 4-4. Corporations (63.6 percent) are the dominant type of ownership followed by sole proprietors (25.9 percent) and partnerships (6.4 percent). The majority of the individuals that completed the questionnaire was composed of the key-decision makers of the responding businesses. A third (33 percent) were presidents, 23 percent owners, and 15 percent (general) managers.

The number of years that responding businesses have been in operation is presented in Table 4-5. The years in business range from three years to 180 years with the mean number of operating years at 30. One-fifth (20.5 percent) have been in operation less than 10 years and almost half of the sample is less than 20 years old (48.2 percent).

Table 4-4 Type of Ownership of Responding Businesses

Ownership	Frequency	Percent	Valid Percent	Cumulative Percent
Sole Proprietor	246	25.8	25.9	25.9
Partnership	61	6.4	6.4	32.4
Co-operative	12	1.3	1.3	33.6
Corporation	603	63.3	63.6	97.3
Other	26	2.7	2.7	100.0
Subtotal	948	99.5	100.0	
Missing Cases	5	.5		
Total	953	100.0		

Table 4-5 The Number of Years in Business of Responding Businesses

Years	Frequency	Percent	Valid Percent	Cumulative Percent
< 10	190	19.9	20.5	20.5
11 - 20	256	26.9	27.6	48.2
21 - 30	168	17.6	18.1	66.3
31 - 40	106	11.1	11.4	77.8
41+	206	21.6	22.2	100.0
Subtotal	926	97.2	100.0	
Missing Cases	27	2.8		
Total	953	100.0		

Note: mean length of operation, 29.8 years (minimum three years, maximum 180 years)

As shown in Table 4-6, most of the businesses (95 percent) that participated in the study operate on a year-round basis.

Table 4-6 The Number of Year-Round and Seasonal Businesses that Returned a Mail Questionnaire

Seasonality	Frequency	Percent	Valid Percent	Cumulative Percent
Year-Round	899	94.3	95.0	95.0
Seasonal	47	4.9	5.0	100.0
Subtotal	946	99.3	100.0	
Missing Cases	7	.7		
Total	953	100.0		

Twenty-two percent of the businesses consider themselves as part of the tourism industry. However, most of these businesses are not solely dependent on tourism for their revenues. About two-thirds (65 percent) of these businesses generate 40 percent or less of their revenues from the sale of tourism-related products and services. Approximately one-fifth generate more than 80 percent of their total sales from tourism. Table 4-8 shows the distribution of tourism-related businesses in terms of their total sales attributed to tourist dollars. About 77 percent of the businesses are not part of the tourism industry.

Table 4-7 Number of Responding Businesses that Classified Themselves to be Tourism Businesses

Tourism Business	Frequency	Percent	Cumulative Percent
Yes	211	22.1	22.1
No	735	77.1	99.3
Missing Cases	7	.7	100.0
Total	953	100.0	

Table 4-8 Percentage of Tourism Attributed Sales by Businesses that Classified Themselves to be Tourism Businesses

Proportion of Sales	Frequency	Percent	Valid Percent	Cumulative Percent
< 20 %	86	9.0	41.7	41.7
20.1-40 %	47	4.9	22.8	64.6
40.1-60 %	34	3.6	16.5	81.1
60.1-80 %	19	2.0	9.2	90.3
80.1-100 %	20	2.1	9.7	100.0
Total	206	21.6	100.0	

4.1.2 External Environment Variables and Businesses

A primary goal of the survey was to determine those environment factors that influence hiring decisions. Table 4-9 compares the relative influence of environment factors on hiring by different-sized businesses. Respondents indicated the influence of factors on their hiring decisions on a scale from 1 (very little) to 5 (very much). In general, all sizes of businesses are influenced by state-government-imposed regulations and laws that increase their cost of doing business, such as the cost of benefits (mean: 3.49), unemployment insurance (mean: 3.09), workers' compensation (mean: 3.09), state taxes (mean: 2.85), paperwork required by state government (mean: 2.72), and laws and regulations (mean: 2.40). Small businesses are highly influenced by consumer demand (mean: 3.66) and access to qualified labor (mean: 3.27). Large businesses are more influenced by consumer demand (mean: 4.08) and labor unions (mean: 2.58) than any other business size. Variables, such as access to credit, the start of the school year, and labor unions, are not influential factors for any businesses. The results of ANOVA tests, that will be reported subsequently, determined that there are no statistically significant

differences in the influence of the state-government-related environment factor on different-sized businesses.

Table 4-9 Relative Importance of External Environment Variables by Business Size Class

External Environment Variables	Business Size							
	Small Businesses		Medium Businesses		Large Businesses		Total	
	Statistics		Statistics		Statistics		Statistics	
	Mean	N	Mean	N	Mean	N	Mean	N
Laws & Regulations	2.40	653	2.72	58	2.53	78	2.44	789
Safety Regulations	2.06	652	2.39	59	2.22	80	2.10	791
State Taxes	2.85	653	2.61	59	2.53	80	2.80	792
Access to Credit	1.82	647	1.81	59	1.66	79	1.80	785
Labor Unions	1.42	655	2.37	59	2.58	80	1.61	794
Workers' Compensation	3.09	654	3.36	59	3.04	79	3.10	792
Paperwork	2.72	652	2.85	59	2.53	80	2.71	791
Access to Qualified Labor	3.27	658	3.83	59	3.51	80	3.33	797
Start of the School Year	1.47	655	1.22	59	1.43	80	1.45	794
Unemployment Insurance	3.09	655	3.15	59	2.86	80	3.07	794
Consumer Demand	3.66	651	3.85	59	4.08	77	3.72	787
Cost of Benefits	3.49	653	3.64	59	3.54	78	3.51	790

Note: 1 = very little influence; 5 = very much influence

Table 4-10 compares the influence of various factors on hiring decisions by different business sectors. Primary industry firms are mainly influenced by state-government-imposed laws and regulations and the cost of doing business variables, such as state laws and regulations (mean: 3.00), safety regulation (mean: 2.79), state taxes (mean: 3.11), paperwork required by state government (mean: 3.16), unemployment insurance (mean: 3.47), and the cost of benefits (mean: 3.84). The hospitality/tourism industry is also influenced by state-government-imposed laws and regulations and cost of doing business variables, such as state laws and regulations (mean: 2.78), state taxes (mean: 2.92), paperwork required by state government (mean: 2.83), unemployment insurance (mean: 3.24), and the cost of benefits (mean: 3.14). Later in this chapter, ANOVA and T-tests will be utilized to test if there are significant mean differences between six industries in terms of the impact of the external environment variables.

Table 4-10 Relative Importance of External Environment Variables by Type of Business

External Environment Variables	Type of Business													
	Primary Industry		Secondary Industry		Wholesale/Retail Services		General Services		Managerial/Personal Services		Hospitality/Tourism Industry		Total	
	Statistics		Statistics		Statistics		Statistics		Statistics		Statistics		Statistics	
	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N
Laws & Regulations	3.00	19	2.71	207	2.36	221	2.29	129	2.11	227	2.78	99	2.43	902
Safety Regulations	2.79	19	2.36	207	2.02	224	1.85	129	1.92	228	2.08	99	2.07	906
State Taxes	3.11	19	2.92	208	2.76	226	2.50	129	2.72	228	2.92	100	2.77	910
Access to Credit	2.05	19	2.03	206	1.81	224	1.66	128	1.60	227	1.66	98	1.78	902
Labor Unions	1.79	19	2.36	209	1.42	226	1.60	129	1.09	229	1.41	99	1.58	911
Workers' Compensation	3.42	19	3.67	210	2.99	225	2.63	127	2.76	229	3.18	100	3.07	910
Paperwork	3.16	19	2.97	207	2.67	226	2.52	129	2.43	226	2.83	99	2.68	906
Access to Qualified Labor	3.21	19	3.60	210	3.10	227	3.20	129	2.99	227	3.52	100	3.25	912
Start of School Year	2.16	19	1.05	209	1.54	226	1.16	129	1.16	229	2.58	99	1.40	911
Unemployment Insurance	3.47	19	3.44	209	2.96	226	2.83	129	2.76	228	3.24	100	3.05	911
Consumer Demand	3.58	19	3.73	205	3.60	224	3.79	129	3.44	229	3.27	97	3.58	903
Cost of Benefits	3.84	19	3.69	209	3.47	224	3.58	128	3.28	228	3.14	100	3.46	908

Note: 1 = very little influence; 5 = very much influence

Table 4-11 presents mean ratings of influence of two conceptual groupings, “state-government-imposed cost of doing business” and “market environment,” for small, medium, and large businesses. The “state-government-imposed cost of doing business” grouping includes such state-government-related variables as state laws and regulations, safety regulation, state taxes, paperwork required by state government, unemployment insurance, workers’ compensation, and the cost of benefits. The “market environment” grouping includes such market-related variables as consumer demand for the products and services offered by the business and access to qualified labor. Variables, such as access to credit, the start of the school year, and labor unions are not included in any of

the groupings, because they are not influential factors for all businesses based on the correlation analysis.

There are some interesting differences among various-sized businesses in an assortment of industrial sectors. The “market environment” grouping exerts a similar degree of influence across industrial sectors. Hiring by large and small businesses in all sectors is significantly influenced by the “market environment” grouping.

Table 4-11 Relative Importance of External Environment Factors by Size and Type of Business

Business Size	Business Type		State Imposed Cost of Doing Business Factor	Market Environment Factor
Small Businesses	Primary Industry	Mean	3.4805	3.7273
		N	11	11
	Secondary Industry	Mean	3.0845	3.6538
		N	130	130
	Wholesale/ Retail Services	Mean	2.7374	3.3916
		N	166	166
	General Services	Mean	2.7029	3.5000
		N	100	100
	Managerial/ Personal Services	Mean	2.7245	3.3344
		N	163	163
	Hospitality/Tourism Industry	Mean	2.7571	3.5438
		N	80	80
	Total	Mean	2.8133	3.4708
		N	650	650
Medium Businesses	Primary Industry	Mean	1.7143	.5000
		N	1	1
	Secondary Industry	Mean	2.9116	4.0476
		N	21	21
	Wholesale/ Retail Services	Mean	3.5729	4.1250
		N	16	16
	General Services	Mean	2.4082	3.5000
		N	7	7
	Managerial/ Personal Services	Mean	2.3766	3.8182
		N	11	11
	Hospitality/Tourism Industry	Mean	3.6429	2.2500
		N	2	2
	Total	Mean	2.9364	3.8362
		N	58	58

Note: 1 = very little influence; 5 = very much influence

Table 4-11 (cont'd)

Large Businesses	Primary Industry	Mean	3.0000	3.8333
		N	3	3
	Secondary Industry	Mean	3.3238	3.9600
		N	25	25
	Wholesale/ Retail Services	Mean	2.2044	3.5417
		N	12	12
	General Services	Mean	2.7381	4.0000
		N	13	13
	Managerial/ Personal Services	Mean	1.9474	3.5526
		N	19	19
	Hospitality/Tourism Industry	Mean	3.9619	4.0000
		N	5	5
	Total	Mean	2.7396	3.7987
		N	77	77
Total	Primary Industry	Mean	3.2667	3.5333
		N	15	15
	Secondary Industry	Mean	3.0979	3.7443
		N	176	176
	Wholesale/ Retail Services	Mean	2.7733	3.4613
		N	194	194
	General Services	Mean	2.6895	3.5542
		N	120	120
	Managerial/ Personal Services	Mean	2.6282	3.3834
		N	193	193
	Hospitality/Tourism Industry	Mean	2.8467	3.5402
		N	87	87
	Total	Mean	2.8151	3.5299
		N	785	785

Note: 1 = very little influence; 5 = very much influence

4.1.3 Businesses Perceptions of State Government

The questionnaire also asked business owners and managers to indicate: (1) their contact with various state agencies; (2) their degree of satisfaction with various state agencies; and (3) their evaluations of the quality of state-government services and of the expertise of state-government personnel. Their satisfaction was measured on a five-point scale.

There was considerable variation in the amount of contact that different-sized businesses had with state agencies. More than half of all businesses have had no contact with the Michigan Jobs Commission (68.5 percent), Michigan Occupational Safety and Health Agency (57 percent), Michigan Department of Transportation (64.7 percent), Michigan Travel Bureau (75.1 percent), Michigan Department of Social Services (56.3 percent), Michigan Department of Agriculture (76.6 percent), Michigan Department of Commerce (64.5 percent), and Michigan Department of Education (68.0 percent). An even higher percentage of small businesses had no contact with various state agencies: Michigan Jobs Commission (72.4 percent); Michigan Department of Natural Resources (57.3 percent); Michigan Department of Transportation (67.4 percent); Michigan Occupational Safety and Health Agency (62.3 percent); Michigan Travel Bureau (75.6 percent); Michigan Department of Social Services (57.1 percent); Michigan Department of Agriculture (77.0 percent); Michigan Department of Commerce (65.6 percent); and Michigan Department of Education (69.7 percent). Only about half of the medium and large businesses had contact with various state agencies, as shown in Table 4-12. Medium- (49.1 percent) and large-sized businesses (60.0 percent) had less contact with

the Michigan Department of Treasury than did small businesses (62.8 percent). However, the Michigan Employment Security Commission had considerable contact with all businesses, regardless of size (65.6 percent by small businesses, 87.5 percent by medium-sized businesses, and 75.0 percent by large businesses).

About half of those businesses that had contact with a state agency were satisfied with the contact (see percent^a in Table 4-12). Noteworthy was a relatively high percentage of the businesses that were undecided about their satisfaction with state-agency contact. There was generally more satisfaction with the contacts with the Michigan Travel Bureau (satisfied: 60.9 percent vs. dissatisfied: 12.9 percent), the Michigan State Police (satisfied: 72.9 percent vs. dissatisfied: 14.0 percent), and the Michigan Department of Treasury (satisfied: 40.2 percent vs. dissatisfied: 27.0 percent).

Table 4-13 shows the satisfaction levels of businesses that had some types of contact with a particular state agency. In general, businesses are not very satisfied with state agencies.

Table 4-12 Degree of Satisfaction with State Agencies by Business Size Class

State Agencies	Satisfaction Level	Frequencies (Percent/ Percent ^a)											
		Small Firms			Medium Firms			Large Firms			Total Firms		
Michigan Jobs Commission	NC. No Contact	469	72.4		30	55.6		37	46.3		536	68.5	
	1. Very Satisfied	21	3.2	11.7	4	7.4	16.7	2	2.5	4.7	27	3.5	11.0
	2. Satisfied	47	7.3	26.3	1	1.9	4.2	15	18.8	34.9	63	8.1	25.6
	3. Undecided	72	11.1	40.2	12	22.2	50.0	18	22.5	41.9	102	13.0	41.5
	4. Dissatisfied	23	3.5	12.8	5	9.3	20.8	6	7.5	14.0	34	4.3	13.8
	5. Very Dissatisfied	16	2.5	8.9	2	3.7	8.3	2	2.5	4.7	20	2.6	8.1
Michigan Department of Natural Resources	NC. No Contact	371	57.3		21	36.2		37	46.8		429	54.6	
	1. Very Satisfied	26	4.0	9.4	1	1.7	2.7	1	1.3	2.4	28	3.6	7.9
	2. Satisfied	75	11.6	27.1	6	10.3	16.2	9	11.4	21.4	90	11.5	25.3
	3. Undecided	75	11.6	27.1	12	20.7	32.4	21	26.6	50.0	108	13.8	30.3
	4. Dissatisfied	36	5.6	13.0	6	10.3	16.2	6	7.6	14.3	48	6.1	13.5
	5. Very Dissatisfied	65	10.0	23.5	12	20.7	32.4	5	6.3	11.9	82	10.4	23.0
Michigan Employment Security Commission	NC. No Contact	224	34.4		7	12.1		20	25.0		251	31.8	
	1. Very Satisfied	42	6.4	9.8	1	1.7	2.0	3	3.8	5.0	46	5.8	8.5
	2. Satisfied	137	21.0	32.0	12	20.7	23.5	11	13.8	18.3	160	20.3	29.7
	3. Undecided	107	16.4	25.0	18	31.0	35.3	23	28.8	38.3	148	18.7	27.5
	4. Dissatisfied	80	12.3	18.7	10	17.2	19.6	15	18.8	25.0	105	13.3	19.5
	5. Very Dissatisfied	62	9.5	14.5	10	17.2	19.6	8	10.0	13.3	80	10.1	14.8
Michigan Department of Transportation	NC. No Contact	435	67.4		22	38.6		48	60.8		505	63.4	
	1. Very Satisfied	18	2.8	8.6	3	5.3	8.6	1	1.3	3.2	22	2.8	7.6
	2. Satisfied	66	10.2	31.4	11	19.3	31.4	8	10.1	25.8	100	12.6	34.4
	3. Undecided	68	10.5	32.4	15	26.3	42.9	13	16.5	41.9	96	12.1	33.0
	4. Dissatisfied	27	4.2	12.9	1	1.8	2.9	6	7.6	19.4	34	4.3	11.7
	5. Very Dissatisfied	31	4.8	14.8	5	8.8	14.3	3	3.8	9.7	39	4.9	13.4
Michigan Occupational Safety and Health Agency	NC. No Contact	403	62.3		20	35.1		24	30.0		447	65.4	
	1. Very Satisfied	16	2.5	6.6	1	1.8	2.7	3	3.8	5.4	20	2.9	8.4
	2. Satisfied	67	10.4	27.5	4	7.0	10.8	19	23.8	33.9	90	13.2	38.0
	3. Undecided	85	13.1	34.8	18	31.6	48.6	13	16.3	23.2	16	2.3	6.8
	4. Dissatisfied	42	6.5	17.2	12	21.1	32.4	17	21.3	30.4	71	10.4	30.0
	5. Very Dissatisfied	34	5.3	13.9	2	3.5	5.4	4	5.0	7.1	40	5.8	16.9
Michigan Travel Bureau	NC. No Contact	487	75.6		40	70.2		59	74.7		586	75.1	
	1. Very Satisfied	38	5.9	24.2	4	7.0	23.5	1	1.3	5.0	43	5.5	22.2
	2. Satisfied	57	8.9	36.3	5	8.8	29.4	13	16.5	65.0	75	9.6	38.7
	3. Undecided	40	6.2	25.5	7	12.3	41.2	4	5.1	20.0	51	6.5	26.3
	4. Dissatisfied	15	2.3	9.6							15	1.9	7.7
	5. Very Dissatisfied	7	1.1	4.5	1	1.8	5.9	2	2.5	10.0	10	1.3	5.2
Michigan State Police	NC. No Contact	343	52.8		28	49.1		42	53.2		413	52.5	
	1. Very Satisfied	120	18.5	39.1	11	19.3	37.9	9	11.4	24.3	140	17.8	37.5
	2. Satisfied	107	16.5	34.9	6	10.5	20.7	19	24.1	51.4	132	16.8	35.4
	3. Undecided	40	6.2	13.0	5	8.8	17.2	4	5.1	10.8	49	6.2	13.1
	4. Dissatisfied	19	2.9	6.2	6	10.5	20.7	1	1.3	2.7	26	3.3	7.0
	5. Very Dissatisfied	21	3.2	6.8	1	1.8	3.4	4	5.1	10.8	26	3.3	7.0
Michigan Department of Social Services	NC. No Contact	370	57.1		33	57.9		38	48.1		441	56.3	
	1. Very Satisfied	25	3.9	9.0	1	1.8	4.2	2	2.5	4.9	28	3.6	8.2
	2. Satisfied	51	7.9	18.3	5	8.8	20.8	11	13.9	26.8	67	8.5	19.5
	3. Undecided	72	11.1	25.9	6	10.5	25.0	15	19.0	36.6	93	11.9	27.1
	4. Dissatisfied	69	10.6	24.8	8	14.0	33.3	8	10.1	19.5	85	10.8	24.8
	5. Very Dissatisfied	61	9.4	21.9	4	7.0	16.7	5	6.3	12.2	70	8.9	20.4

Note: 1 = very satisfied; 5 = very dissatisfied

Table 4-12 (cont'd)

Michigan Department of Agriculture	NC. No Contact	495	77.0		42	75.0		59	74.7		596	76.6	
	1. Very Satisfied	31	4.8	20.9	3	5.4	21.4	6	7.6	30.0	40	5.1	22.0
	2. Satisfied	46	7.2	31.1	4	7.1	28.6	3	3.8	15.0	53	6.8	29.1
	3. Undecided	47	7.3	31.8	7	12.5	50.0	9	11.4	45.0	63	8.1	34.6
	4. Dissatisfied	16	2.5	10.8				1	1.3	5.0	17	2.2	9.3
	5. Very Dissatisfied	8	1.2	5.4				1	1.3	5.0	9	1.2	4.9
Michigan Department of Commerce	NC. No Contact	423	65.6		34	59.6		46	59.0		503	64.5	
	1. Very Satisfied	29	4.5	13.1	4	7.0	17.4	1	1.3	3.1	34	4.4	12.3
	2. Satisfied	91	14.1	41.0	9	15.8	39.1	11	14.1	34.4	111	14.2	40.1
	3. Undecided	70	10.9	31.5	10	17.5	43.5	11	14.1	34.4	91	11.7	32.9
	4. Dissatisfied	23	3.6	10.4				6	7.7	18.8	29	3.7	10.5
	5. Very Dissatisfied	9	1.4	4.1				3	3.8	9.4	12	1.5	4.3
Michigan Department of Treasury	NC. No Contact	242	37.2		29	50.9		32	40.0		303	38.5	
	1. Very Satisfied	35	5.4	8.6	3	5.3	10.7	1	1.3	2.1	39	4.9	8.0
	2. Satisfied	135	20.7	33.0	6	10.5	21.4	15	18.8	31.3	156	19.8	32.2
	3. Undecided	131	20.1	32.0	8	14.0	28.6	20	25.0	41.7	159	20.2	32.8
	4. Dissatisfied	71	10.9	17.4	9	15.8	32.1	7	8.8	14.6	87	11.0	17.9
	5. Very Dissatisfied	37	5.7	9.0	2	3.5	7.1	5	6.3	10.4	44	5.6	9.1
Michigan Department of Education	NC. No Contact	448	69.7		34	61.8		46	58.2		528	68.0	
	1. Very Satisfied	27	4.2	13.8				1	1.3	3.0	28	3.6	11.2
	2. Satisfied	34	5.3	17.4	4	7.3	19.0	9	11.4	27.3	47	6.0	18.9
	3. Undecided	57	8.9	29.2	6	10.9	28.6	11	13.9	33.3	74	9.5	29.7
	4. Dissatisfied	37	5.8	19.0	5	9.1	23.8	7	8.9	21.2	49	6.3	19.7
	5. Very Dissatisfied	40	6.2	20.5	6	10.9	28.6	5	6.3	15.2	51	6.6	20.5

Note: 1 = very satisfied; 5 = very dissatisfied

Percent ^a: percent calculated within businesses that had contact with any of 12 agencies.

Table 4-13 Mean Satisfaction with State Agencies by Businesses Size Class

State Agencies	Mean (Number)			
	Small Firms	Medium Firms	Large Firms	Total
Michigan Jobs Commission	2.89 (179)	3.00 (24)	2.79 (43)	2.83 (246)
Michigan Department of Natural Resources	3.14 (277)	3.59 (37)	3.12 (42)	3.19 (356)
Michigan Employment Security Commission	2.96 (428)	3.31 (51)	3.23 (60)	3.02 (539)
Michigan Department of Transportation	2.94 (210)	2.83 (35)	3.06 (31)	2.94 (276)
Michigan Occupational Safety and Health Agency	3.05 (244)	3.27 (37)	3.00 (56)	3.06 (337)
Michigan Travel Bureau	2.34 (157)	2.35 (17)	2.45 (20)	2.35 (194)
Michigan State Police	2.07 (307)	2.31 (29)	2.24 (37)	2.10 (373)
Michigan Department of Social Services	3.32 (278)	3.38 (24)	3.07 (41)	3.30 (343)
Michigan Department of Agriculture	2.49 (148)	2.29 (14)	2.40 (20)	2.46 (182)
Michigan Department of Commerce	2.51 (222)	2.26 (23)	2.97 (32)	2.55 (277)
Michigan Department of Treasury	2.85 (409)	3.04 (28)	3.00 (48)	2.88 (485)
Michigan Department of Education	3.15 (195)	3.62 (21)	3.18 (33)	3.19 (249)

Note: 1 = very satisfied; 5 = very dissatisfied

Regardless of industry sectors, most businesses revealed a neutral attitude toward various state agencies (Table 4-14). The hospitality/tourism industry is, however, not satisfied with the Michigan Department of Natural Resources (3.20) nor the Michigan Department of Education (3.17). On the other hand, this industry has high levels of satisfaction with the Michigan Travel Bureau (2.09), the Michigan State Police (2.04), the Michigan Department of Transportation (2.60), and the Michigan Department of Agriculture (2.38).

Table 4-14 Mean Satisfaction with State Agencies by Type of Business

State Agencies	Mean (Number)						
	Primary Industry	Second. Industry	Wholes. / Retail	General Services	Mgrial./ Personal Services	Hospitality / Tourism Industry	Total
Michigan Jobs Commission	2.43 (7)	2.56 (90)	2.98 (54)	2.66 (35)	3.06 (62)	2.71 (41)	2.78 (289)
Michigan Department of Natural Resources	4.00 (10)	3.07 (113)	3.29 (94)	2.97 (68)	3.05 (83)	3.20 (46)	3.14 (414)
Michigan Employment Security Commission	3.00 (14)	2.94 (151)	3.06 (136)	2.99 (77)	3.08 (147)	3.15 (74)	3.04 (599)
Michigan Department of Transport.	2.89 (9)	2.82 (82)	3.03 (79)	3.02 (46)	2.97 (59)	2.60 (40)	2.90 (315)
Michigan Occupational Safety and Health Agency	3.70 (10)	3.05 (126)	2.90 (72)	2.95 (39)	3.17 (93)	2.77 (48)	3.02 (388)
Michigan Travel Bureau	2.00 (4)	2.43 (47)	2.31 (52)	2.85 (39)	2.19 (36)	2.09 (45)	2.36 (223)
Michigan State Police	1.56 (9)	2.10 (91)	2.14 (108)	2.36 (75)	2.02 (86)	2.04 (56)	2.12 (425)
Michigan Dep. Of Social Services	3.00 (9)	3.14 (77)	3.15 (85)	3.23 (56)	3.28 (108)	3.53 (49)	3.24 (384)
Michigan Department of Agriculture	2.15 (13)	2.44 (50)	2.47 (75)	2.48 (23)	2.74 (34)	2.38 (26)	2.48 (221)
Michigan Department of Commerce	2.57 (7)	2.36 (74)	2.54 (63)	2.59 (66)	2.53 (59)	2.59 (39)	2.51 (308)
Michigan Department of Treasury	2.40 (10)	2.98 (122)	2.76 (131)	2.81 (84)	2.95 (129)	2.84 (69)	2.87 (545)
Michigan Department of Education	2.57 (7)	3.21 (77)	3.09 (53)	3.05 (40)	3.16 (73)	3.17 (42)	3.13 (292)

Note: 1 = very satisfied; 5 = very dissatisfied

Business perceptions of the quality of state-government services and of the expertise of their personnel are presented in Table 4-15. The original five-point scale (1 = strongly disagree; 5 = strongly agree) was re-coded to a three-point scale (1 = disagree; 2 = neutral; 3 = agree). For instance, respondents that indicated either “strongly disagree” or “disagree” with any of the three statements were re-coded as “disagreeing.”

The respondents, for the most part, have negative perceptions regarding the quality of government-provided business services. The Michigan business community, in general, has a negative perception of the quality of state-government services and of the expertise of their personnel. Only a quarter (25.8 percent) of the respondents agree with the statement that “the quality of services offered by state government meets the needs of the business.” More than one-third (36.1 percent) do not believe that government service quality is adequate. More than half of the respondents (55.5 percent) perceive that state-government employees do not know enough about their type of business to be of any help. About 70 percent of businesses indicate that state government needs to market itself better so that businesses will know more about the products and services that state has to offer.

Table 4-15 Business Perceptions of the Quality of State Services, Needs for Marketing of State Services, and Expertise of Agency Employees

Perceptions toward State Services	All Firms			
	N	Disagree (%)	Neutral (%)	Agree (%)
The quality of services by state government meets the needs of the business.	932	36.1	38.2	25.8
State government needs to market itself about the services it has to offer.	932	11.5	18.3	70.2
State government employees lack the knowledge to be helpful.	928	12.5	32.0	55.5

Table 4-16 shows a comparison of how different sized businesses evaluate the quality of state-government-provided services and the expertise of agency personnel.

Table 4-17 presents a similar comparison for businesses in different industry sectors. The tables reveal that there is little difference in evaluations across different sized businesses.

Table 4-16 Perceptions of the Quality of State Services, Needs for Marketing of State Services, and Expertise of Agency Staff by Size Class

Perceptions	Satisfaction Level	N (Percent)			
		Small Firms	Medium Firms	Large Firms	Total
Quality of Services	1. Disagree	231 (35.2)	24 (40.7)	31 (38.8)	286 (36.0)
	2. Neutral	247 (37.7)	22 (37.3)	29 (36.3)	298 (37.5)
	3. Agree	178 (27.1)	13 (22.0)	20 (25.0)	211 (26.5)
Needs for Marketing of State Business Services	1. Disagree	72 (11.0)	5 (8.5)	14 (17.5)	91 (11.4)
	2. Neutral	118 (18.0)	15 (25.4)	11 (13.8)	144 (18.1)
	3. Agree	466 (71.0)	39 (66.1)	55 (68.8)	560 (70.4)
Lack of Expertise of State Agency Staff	1. Disagree	80 (12.3)	4 (6.8)	12 (15.0)	96 (12.2)
	2. Neutral	215 (33.1)	20 (33.9)	20 (25.0)	255 (32.3)
	3. Agree	355 (54.6)	35 (59.3)	48 (60.0)	438 (55.5)

However, there are some interesting differences across industrial sectors (Table 4-17). The majority of the primary industry businesses (66.7 percent) do not feel that state agency personnel have the necessary expertise to provide them with adequate service. A relatively high percentage (44.3) of the hospitality/tourism businesses did not feel that the quality of services offered by state government meets the needs of the tourism business.

In general, all types of industries have a negative attitude toward the quality of services and the expertise provided by state government personnel. Also, most businesses agree that state government needs to market itself better to the business community (Table 4-18).

Table 4-17 Perceptions of Businesses in Different Industries have of the Quality of State Services, Needs for Marketing of State Services, and Expertise of Agency Staff

Perceptions		N (%)						
		The Prim. Ind.	The Sec. Ind.	Wholsl. /Retail. Serv.	Gen. Serv.	Mag./ Persl Serv	Hosp./ Tourism Ind.	Total
Quality of Services	1.Disagree	7 (38.9)	76 (36.4)	81 (36.2)	39 (29.5)	75 (33.6)	47 (44.3)	325 (35.6)
	2. Neutral	6 (33.3)	76 (36.4)	98 (43.8)	44 (33.3)	89 (39.9)	36 (34.0)	349 (38.3)
	3. Agree	5 (27.8)	57 (27.3)	45 (20.1)	49 (37.1)	59 (26.5)	23 (21.7)	238 (26.1)
Needs for Marketing of State Business Services	1.Disagree	5 (27.8)	22 (10.5)	24 (10.7)	19 (14.5)	25 (11.1)	10 (9.5)	105 (11.5)
	2. Neutral	4 (22.2)	35 (16.7)	34 (15.2)	24 (18.3)	45 (20.0)	23 (21.9)	165 (18.1)
	3. Agree	9 (50.0)	152 (72.7)	166 (74.1)	88 (67.2)	155 (68.9)	72 (68.6)	642 (70.4)
Lack of Expertise of State Agency Staff	1.Disagree	1 (5.6)	24 (11.7)	28 (12.6)	25 (19.1)	30 (13.3)	8 (7.7)	116 (12.8)
	2. Neutral	5 (27.8)	64 (31.1)	71 (31.8)	39 (29.8)	78 (34.7)	36 (34.6)	293 (32.3)
	3. Agree	12 (66.7)	118 (57.3)	124 (55.6)	67 (51.1)	117 (52.0)	60 (57.7)	498 (54.9)

Table 4-18 Mean Perceptions of the Quality of State Services, Needs for Marketing of State Services, and Expertise of Agency Staff by Type of Business

Type of Business		Quality of Services	Marketing Gov't	Lack of Expertise
The Primary Industry	Mean	1.89	2.22	2.61
	N	18	18	18
The Secondary Industry	Mean	1.91	2.62	2.46
	N	209	209	206
Wholesale/Retail Services	Mean	1.84	2.63	2.43
	N	224	224	223
General Services	Mean	2.08	2.53	2.32
	N	132	131	131
Managerial & Personal Services	Mean	1.93	2.58	2.39
	N	223	225	225
Hospitality/Tourism Industry	Mean	1.77	2.59	2.50
	N	106	105	104
Total	Mean	1.90	2.59	2.42
	N	912	912	907

Note: 1 = disagree; 2 = neutral; 3 = agree

4.2 Factor Analysis of External Environment Variables

As previously mentioned, the external environment variables for this study were identified during the focus group sessions with 21 businesses. These external environment variables were conceptually classified (combined) into two groupings based on a review of literature. The “state-government-imposed cost of doing business” grouping incorporated seven variables: (1) state labor laws and regulations; (2) state workplace safety regulations; (3) state taxes; (4) workers’ compensation; (5) the paperwork required by state government; (6) unemployment insurance; and (7) the cost of benefits (*e.g.* healthcare). A second grouping, “market environment,” incorporated: (1) access to qualified labor and (2) consumer demand for the products and services offered by the business. Correlation tests among the 12 variables and reliability tests on the two groupings (factors) indicate that these are reliable.

Validity of the two conceptual factors was further examined through a comparison with the factors produced by a factor analysis. Factor analysis is a method commonly employed to identify underlying factors with shared common variance that are mutually independent without redundancy. In order to determine the underlying structure of data, factor analysis uses the common variance and weighs the variables according to their inter-relationships with the others. Since factor analysis reduces the number of variables by identifying groups of inter-correlated variables, the analysis provides useful insights for the construction of variables being studied (Johnston, 1991).

4.2.1 Appropriateness of Data for Factor Analysis

Prior to conducting a factor analysis, appropriateness of the data for factor analysis was first examined on three criteria recommended by Stewart (1981): (1) the sample size; (2) Bartlett's test of sphericity; and (3) the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. According to Comrey (1973), a sample size from 500 to 1,000 is very appropriate for factor analysis. The sample of 953 businesses is more than appropriate based on this criterion.

Bartlett's test of sphericity, using a chi-square test, is used to test the hypothesis that the correlation matrix of 12 external environment variables is an identity matrix, that is, the variables correlate perfectly with themselves but are not correlated with other variables; all diagonal terms are 1 and all off-diagonal terms are 0. For data to be appropriate for factor analysis, a KMO value should be greater than 0.50 and the result of Bartlett's test should be significant. The chi-square value (4989.459) of 12 variables was significant at 0.000 (Table 4-19). The result indicates that the hypothesis is rejected, indicating that the data are not an identity matrix and are appropriate for factor analysis (Jung and Choi, 1997).

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy provides a measure of the extent to which the variables belong together (Jung and Choi, pp. 169-170). A KMO value smaller than 0.50 indicates that data may not be appropriate for factor analysis, because correlation between pairs of variables can not be explained by the other variables (Norusis, 1988). The KMO statistic is 0.921 (Table 4-19), indicating that the data are appropriate for factor analysis. The combination of the three criteria

indicates that the data are appropriate for factor analysis, and there is an underlying structure to this data.

Table 4-19 Results of the KMO (Kaiser-Meyer-Olkin) and Bartlett's Test of Appropriateness of the Data for Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	4989.459
	df	66
	Sig.	.000

4.2.2 Factor Extraction

A principal component analysis (PCA) was used to extract an initial set of factors. In order to identify and extract a group of inter-related variables (a factor), a PCA method was utilized. Since the components model investigates all of the variances in the original variables, this method produces a set of components whose number equals the number of variables that are uncorrelated to each of the other 12 independent components in this study (Johnston, 1980; Aczel, 1993). Thus, this method minimizes the loss of information in the original data set (Chea, Kim, and Lee, 1992).

A principal components analysis method extracts the factors from the correlation matrix in serial order of eigenvalue size. Table 4-20 shows the eigenvalues, percentages of variance explained, and the cumulative percentage of variance explained for different factor solutions. The eigenvalue is the sum of squared component (factor) loadings. The

eigenvalues and percentage of total variance explained are different for each of the 12 solutions.

The results from the different principal component solutions were evaluated against the four criteria described in Chapter 3: (1) eigenvalue greater than 1; (2) variance explained to account for as much of the variance as possible; (3) scree test that plots the eigenvalues against the number of components (factors); and (4) interpretability of extracted factors (Aczel, 1993). Two of the potential solutions have eigenvalues greater than 1 (Table 4-20). The two factors have eigenvalues 5.557 and 1.188, and the total variance explained is 56.210 percent. Extracting an additional (third) component results in an eigenvalue less than 1 and only contributes an additional 7.731 percent of variance explained. The scree plot (Figure 4-3) also identifies the two-component (factor) solution.

Table 4-20 The Principal Components Analysis: Eigenvalues and Percent of Variance Explained

Component	Eigenvalue and % of Variance for 12 External Environmental Variables		
	Eigenvalue	Percent of Variance Explained	Cumulative Percent of Variance Explained
1	5.557	46.312	46.312
2	1.188	9.898	56.210
3	.928	7.731	63.941
4	.804	6.698	70.639
5	.734	6.113	76.752
6	.658	5.484	82.235
7	.574	4.783	87.019
8	.439	3.661	90.679
9	.332	2.769	93.448
10	.310	2.579	96.028
11	.266	2.218	98.246
12	.210	1.754	100.000

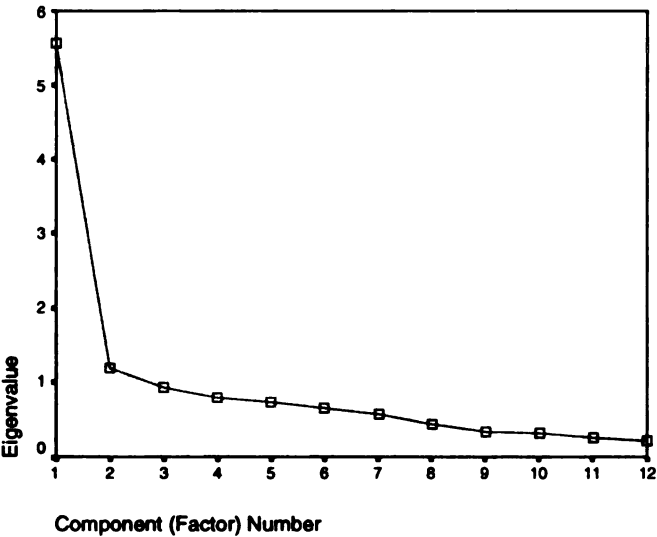


Figure 4-3 Scree Plot for Selecting Factor Solutions

4.2.3 The Rotation of Factors

One of the primary purposes of factor analysis is to identify groups of variables with shared common variance. Given that this method only extracts principal components, it does not achieve this purpose. The first factor is placed in the average position closest to all of the variables which may not identify (or select) groups of variables. Rotating the principal components that are extracted better identifies groups of inter-related variables. Rotated factors provide for better group identification and more clearly separates the factors (Johnston, 1991). Rotation also facilitates discovery of variables as approximations to simple structure when there are groups of variables with a significant amount of shared common variance (Johnston, p. 163).

There are many different potential rotation methods each with its own benefits and limitations (Nie *et al.*, 1975; Johnston, 1991; Aczel, 1993). Kaiser's varimax orthogonal rotation was employed, because it maximizes variance and produces some high loadings and some near-zero loadings on each factor by simplifying the columns of a factor matrix (Nie *et al.*, 1975). The final rotated solution is easier to interpret and understand, because there are factors with loadings that are high on some variables and low on others (Aczel, 1993).

Rotated and unrotated factor loadings for the two-factor solution are presented in Table 4-21. While three variables, including access to credit (0.579), labor unions (0.526), and the start of the school year (0.329) have fairly high loadings in the unrotated solution, they are not loaded highly on any of the rotated factors. Variables related to state programs and regulations that increase the cost of doing business, including

workers' compensation (0.844), unemployment insurance (0.820), paperwork (0.820), state taxes (0.817), laws and regulations (0.824), safety regulations (0.754), and the cost of benefits (0.646) are highly loaded on one of the factors. Consumer demand (0.802) and access to qualified labor (0.737) are loaded on the other factor. Variables, such as access to credit (0.470), labor unions (0.446), and the start of the school year (0.178) are not related (loaded) on either factor.

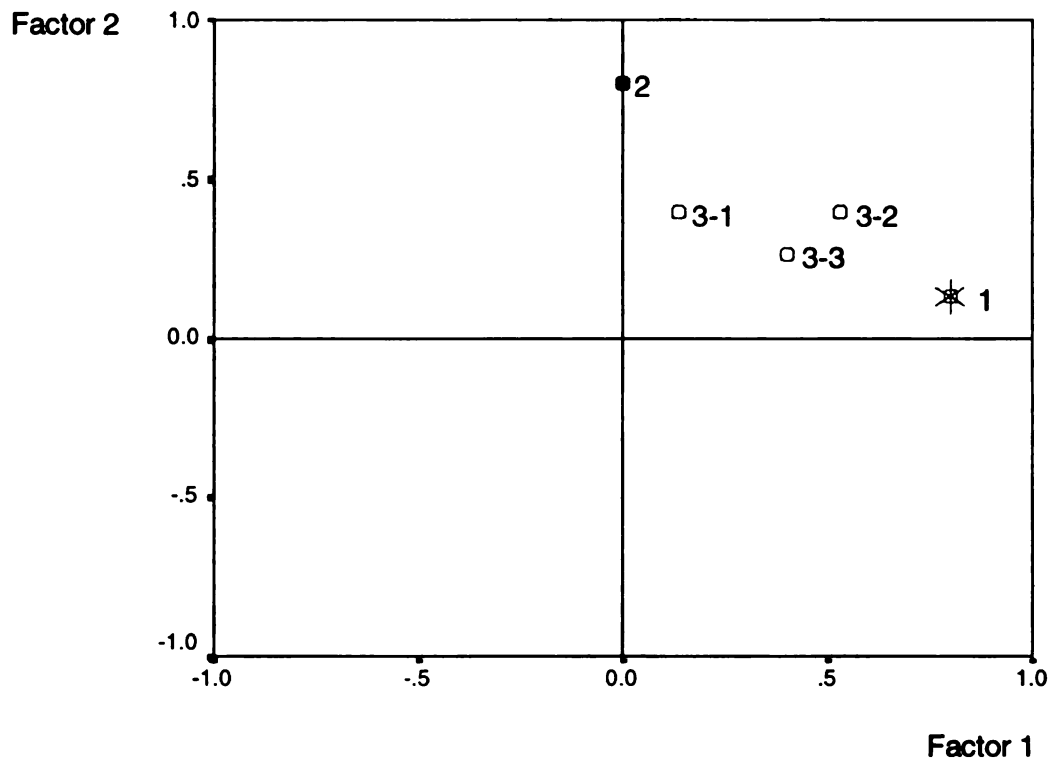
Table 4-21 The Rotated and Unrotated Factor Loadings for Two Factor Solution

External Environmental Variables	Unroated Factor Loadings		Roatated Factor Loadings	
	1	2	1	2
Workers' Compensation	0.853	-0.149	0.844	0.195
Unemployment Insurance	0.832	-0.138	0.820	0.198
Paperwork	0.823	-0.159	0.820	0.174
State Taxes	0.812	-0.178	0.817	0.153
Laws & Regulations	0.803	-0.217	0.824	0.113
Safety Regulations	0.763	-0.133	0.754	0.175
Cost of Benefits	0.709	0.017	0.646	0.292
Access to Credit	0.579	0.161	0.470	0.373
Labor Unions	0.526	0.097	0.446	0.294
Start of School Year	0.329	0.321	0.178	0.424
Consumer Demand	0.326	0.733	0.014	0.802
Access to Qualified Labor	0.496	0.590	0.226	0.737

Figure 4-4 shows clearly that state programs and regulations that are generally perceived as increasing the cost of doing business are clustered as Factor 1. Consumer demand and access to qualified labor are grouped as Factor 2. This is consistent with the hypothesized conceptual groupings described in Chapter 3.

Loadings, "the proportion of the variance in the variable associated with the variance in the factor," are frequently used to identify and label factors (Johnston, p. 168).

Because the variables with the highest loading on Factor 1 are related to state-government regulations and programs, this factor is labeled as the *state-imposed cost of doing business* factor. The second factor is named the *market environment* factor, because the variables with the highest loadings are consumer demand and access to qualified labor.



Note: 1 = Factor 1, *state-imposed cost of doing business* (Variables: state laws and regulations, state safety regulations, state taxes, workers' compensation, paperwork, unemployment insurance, and the cost of benefits)
 2 = Factor 2, *market environment* (Variables: consumer demand and access to qualified labor)
 3 = Unrelated Variables (3-1, the start of the school year; 3-2, access to credit; 3-3, labor unions)

Figure 4-4 Component Plot in Rotated Space

The communality is “the proportion of the variance that each variable accounted for by all of the factors” (Johnston, p.142). In other words, the communality is the part of

“the total variance in the data that is composed of the common-factor component” (Aczel, p.807). The communality values, therefore, show the proportion of the variance which each variable has in common. The larger the communality, the more a factor is drawn towards a variable (Johnston, 1980). Although most of the state-regulations-related variables have about 70 percent of communality values, safety regulations (59.9 percent) and the cost of benefits (50.2 percent) have values of less than 70 percent. The variables included in the *market environment* factor, such as consumer demand (64.4 percent) and access to qualified labor (59.4 percent) have almost the same communality values. Table 4-22 provides a summary description for the factor analyses conducted on the external environment variables.

Table 4-22 Summary of the Two-Factor Solution: Variable Loadings on the Factors and Communality

External Environment Variables	Factor		Communality
	State-Imposed Cost of Doing Business (F1)	Market Environment (F2)	
Workers' Compensation	0.844	0.195	0.750
Laws & Regulations	0.824	0.113	0.692
Unemployment Insurance	0.820	0.198	0.712
Paper work	0.820	0.174	0.703
State Taxes	0.817	0.153	0.691
Safety Regulations	0.754	0.175	0.599
Cost of Benefits	0.646	0.292	0.502
Consumer Demand	0.226	0.802	0.644
Access to Qualified Labor	0.178	0.737	0.594
Eigenvalue	5.557	1.188	

4.3 Hypothesis Test Results

This section reports the results of the tests of hypotheses. The *state-imposed cost of doing business* and *market environment* factors, rather than the original 12 variables,

are used to test hypotheses relating to the impact of environment factors. Factor scores were computed for each factor by multiplying the original raw data measurements by the corresponding factor-score (regression) coefficients.

Hypothesis One: The *market environment* factor is more important than the *state-government-imposed cost of doing business* factor in firms' hiring decisions.

To test this hypothesis, the mean importance of variables comprising (loaded on) the two factors were compared with one another. As described earlier, the businesses that completed a questionnaire ranked the importance of the 12 environment factors in their hiring decisions on a five-point scale (1 = very little importance; 5 = very much importance). The mean importance of the market-environment-related variables is 3.4, compared to 2.8 for the state-imposed cost of doing business variables (Table 4-23). All businesses are more influenced by the *market environment* factor (mean 3.4: "much" influenced by the factor) than by the *state-imposed cost of doing businesses* factor (mean 2.8: "little" influenced by the factor).

Table 4-23 Mean Influence of the State-Imposed Cost of Doing Business and Market Environment Factors

Environment Factor	Mean	N	Std. Deviation
State-Imposed Cost of Doing Business Factor	2.8014	936	1.3475
Market Environment Factor	3.4172	936	1.3999

Note: 1 = very little influence; 5 = very much influence

The results of a paired T-test (Table 4-24) indicate that there is a statistically significant difference between the mean importance businesses assign to the *market environment* and the *state-imposed cost of doing business* factors in their hiring decisions. On average, businesses assign greater importance to consumer demand and availability of labor when making hiring decisions than they do to state programs and regulations that increase the cost of doing business. The *F*-value of 12.13 is significant at the 0.05 α level (p -value = 0.000) and the null hypothesis is rejected. Businesses are significantly influenced by the *market environment* factor in their hiring decision making.

Table 4-24 Results of T-tests for Importance Businesses Assign to the *State-Imposed Cost of Doing Business* and *Market Environment* Factors in their Hiring Decisions

	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
State Imposed Cost of Doing Business Factor - Market Environment Factor	.6158	1.5538	.0508	12.125	935	.000*

Hypothesis Two: There is a significant difference between small, medium, and large businesses (determined by total number of employees) in terms of the relative importance of various environment factors on their hiring decisions.

Mean importance assigned to variables comprising each of the two factors is presented in Table 4-25. There does not appear to be any major differences in the degree

of importance placed on the *state-imposed cost of doing business* factor by different-sized businesses. Conversely, there are noticeable differences in the mean importance of the *market environment* factor. On average, small businesses assign this factor a 3.47, compared to 3.80 for large businesses and 3.84 for medium-sized businesses.

Table 4-25 Mean Importance Assigned to the *State-Imposed Cost of Doing Business* and *Market Environment* Factors by Different Size of Business

1=small business, 2=medium sizes business, 3=large		State Imposed Cost of Doing Business Factor	Market Environment Factor
small businesses	Mean	2.8143	3.4689
	N	659	659
medium size businesses	Mean	2.9617	3.8390
	N	59	59
large businesses	Mean	2.7518	3.8000
	N	80	80
Total	Mean	2.8189	3.5294
	N	798	798

Note: 1 = very little influence; 5 = very much influence

One-way ANOVA (Analysis of Variance) was used to determine whether or not there was a statistically significant difference in the importance different-sized businesses assign to variables comprising the two factors. A requirement for the use of ANOVA is that the variances for three sizes of businesses (three groups) are equal. The results from the Levene test of homogeneity of variances (Table 4-26) indicate that the variances are not statistically different. The Levene statistic for the *state-imposed cost of doing business* factor is 1.232 ($p\text{-value} = 0.292, > 0.05 \alpha$). The Levene statistic for the *market*

environment factor is 3.077 (p -value = 0.67, $> 0.05 \alpha$). Based on these results, ANOVA can be used to test for difference across the three sizes of businesses.

Table 4-26 Test for Homogeneity of Variances for Different Size of Business

	Levene Statistic	df1	df2	Sig.
REGR factor score 1 for analysis 1	1.232	2	757	.292
REGR factor score 2 for analysis 1	3.077	2	757	.067

The ANOVA indicates no statistically significant difference in the mean importance placed on the two factors by different size of business. The F -value (Table 4-27) for the *state-imposed cost of doing business* factor is 0.477 with a significance of 0.621 and the null hypothesis is accepted at the 0.05 significance level (α). The F -value for the *market environment* factor is 4.088 with a significance of 0.017 ($< 0.05 \alpha$). The null hypothesis is rejected. Based on the statistical analyses, there is a difference across different sizes of businesses in the importance assigned to the *market environment* factor in their hiring decisions. There is no size-related difference when it comes to the importance of the *state-imposed cost of business* factor.

Table 4-27 Results of ANOVA Tests Comparing the Mean Importance Assigned to the Two Environment Factors by Different Size of Business

Environmental Factors by Business Type		Sum of Squares	df	Mean Square	F	Sig.
State Imposed Cost of Doing Business Factor	Between	1.577	2	.788	.477	.621
	Whithin Groups	1315.291	795	1.654		
		1316.868	797			
Market Environment Factor	Between	13.925	2	6.963	4.088	.017*
	Whithin Groups	1354.133	795	1.703		
		1368.058	797			

Hypothesis Three: Small businesses are less influenced by the *market environment*, consumer demand and access to qualified labor, in their decision making than are medium- or large-sized businesses.

Responses to the mail questionnaire appear to confirm the literature that indicates that small businesses are more sensitive to financial factors and the cost of doing business than are larger businesses (Atkinson and Storey, 1994; Judd, Greenwood, and Becker, 1988).

Again, a Levene test was conducted to determine whether or not population variances are equal. The results shown in Table 4-28 indicate that the hypothesis of equal variance should be rejected. Equal variance can, therefore, not be assumed when the T-test was used to test for differences between small- and medium-sized businesses and between small- and large-sized businesses.

Table 4-28 Results of T-tests Comparing the Importance that Small, Medium, and Large Businesses Assign to the Market Environment when Making Hiring Decisions

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Market Environment Factor (Small and Medium)	Equal variances assumed	6.474	.011	-2.063	716	.04	-.3701	.1794
	Equal variances not assumed			-2.349	72.95	.021*	-.3701	.1576
Market Environment Factor (Small and Large)	Equal variances assumed	5.176	.023	-2.123	737	.034	-.3311	.1559
	Equal variances not assumed			-2.374	106.3	.019*	-.3311	.1394
Market Environment Factor (Medium and Large)	Equal variances assumed	.211	.646	.197	137	.844	.0389	.1975
	Equal variances not assumed			.198	126	.844	.0389	.1971

The results from the different T-tests are also reported in Table 4-29. The results (p -value of one tailed T-test = $0.011 < 0.05 \alpha$) indicate a statistically significant difference in the importance that small and medium businesses assign to the *market environment* when making their hiring decisions. Small businesses place significantly less importance on consumer demand and availability of qualified labor when deciding whether or not to hire more employees (see Table 4-25 for mean importance). There is also a statistically significant difference between small and large businesses in terms of the importance assigned to *market environment* in hiring decisions. As hypothesized, large- and medium-sized businesses place greater emphasis on the *market environment*

than do small businesses. The T-test does not find a statistically significant difference between large- and medium-sized businesses on the importance of *market environment* in hiring decisions. Hiring decisions by medium- and large-sized businesses are more sensitive to the *market environment*.

Table 4-29 Summary of T-tests Comparing the Importance that Small, Medium, and Large Businesses Assign to the Market Environment when Making Hiring Decisions

Sizes of Business	Medium Businesses		Large Businesses	
	T	p	T	p
Small Businesses	-2.349	0.011*	-2.374	0.009*
Medium Business			0.197	0.422

Hypothesis Four: There is a significant difference between businesses in different industry sectors in terms of the relative influence of various environment factors on their hiring decisions.

ANOVA was used to determine if there is a significant difference in the importance businesses in six industries place on the *state-imposed cost of doing business* and the *market environment* factors in decisions as to the number of employees to hire or retain. The industries include: (1) primary industry; (2) secondary industry; (3) wholesale and retail services; (4) general services; (5) managerial and personal services; and (6) hospitality/tourism. The hypothesis was tested by utilizing (1) ANOVA tests for differences in mean importance assigned to the two factors across the six industries and (2) T-tests to examine mean differences in importance assigned to the factors between each pair of groups of different types of businesses. The industry types are the

independent variable (groups), and the mean importance (influence) of the two external environment factors are the dependent variables in both the ANOVA and T-test.

Table 4-30 reports the sensitivity to the two factors by businesses in different industries. Hiring decisions by both primary and secondary industries are more influenced by the *state-imposed cost of doing business* factor than are other industry sectors. Hiring decisions in most industry sectors are highly sensitive to the *market environment* factor.

Table 4-30 Mean Importance/ Influence of the State-Imposed Cost of Doing Business and Market Environment Factors on Hiring Decisions by Different Type of Business

Type of Business		State Imposed Cost of Doing Business Factor	Market Environment Factor
Primary Industry	Mean	3.2556	3.3947
	N	19	19
Secondary Industry	Mean	3.1132	3.6690
	N	210	210
Wholesale/Retail Services	Mean	2.7556	3.3480
	N	227	227
General Services	Mean	2.5993	3.4961
	N	129	129
Managerial/ Personal Services	Mean	2.5737	3.2174
	N	230	230
Hospitality/Tourism Industry	Mean	2.8680	3.4208
	N	101	101
Total	Mean	2.7927	3.4187
	N	916	916

Note: 1 = very little influence; 5 = very much influence

The results of the ANVOA indicate a significant difference ($F = 4.767$, $p\text{-value} = 0.000 < 0.05 \alpha$) in the importance different industries assign to the *state-imposed cost of*

doing business factor in their hiring decisions (Table 4-31). There is also a significant difference ($F = 2.520$, $p\text{-value} = 0.026 < 0.05 \alpha$) in the importance of the *market environment* factor in hiring decisions across the six industries. The results of the ANOVA imply that at least one industry differed significantly from at least one other industry in terms of the influence (importance) of a factor. To determine the type(s) and magnitude(s) of the differences, additional statistical tests are required.

Table 4-31 ANOVA Tests of Type of Business Differences on the Importance of State-Imposed Cost of Doing Business and Market Environment Factors

Environmental Factors by Business Type		Sum of Squares	df	Mean Square	F	Sig.
State Imposed Cost of Doing Business Factor	Between	42.384	5	8.477	4.767	.000*
	Whithin Groups	1618.173	910	1.778		
		1660.557	915			
Market Environment Factor	Between	24.401	5	4.880	2.520	.028*
	Whithin Groups	1762.290	910	1.937		
		1786.691	915			

Table 4-32 and Table 4-33 present the results (T-statistics and p -value, level of significance) from the independent T-tests of the six industries. The tables also provide the results (F -value and p -value) from the Levene test for homogeneity of variances. The T-tests reveal some interesting differences and similarities with regard to their sensitivity to the two factors in hiring decisions by businesses comprising different industries.

There is no statistically significant difference between primary and secondary industries or between the primary and the wholesale/retail industries in terms of the influence that the two factors have on their hiring decisions. The primary industry does differ significantly from both the general services sector and the managerial/personal-

service sector when it comes to the influence of the *state-imposed cost of doing business* factor in their hiring decisions. Primary-industry businesses are more sensitive to the influence of this factor when making hiring decisions. There is no statistically significant difference between the primary industry and either the general services or the managerial/personal service sectors when it comes to the influence of the *market environment* factor in the making of their hiring decisions.

Secondary-industry businesses are more highly influenced by the *state-government-imposed cost of doing business* factor than are the general-services, the wholesale/retail-service, or the managerial/personal-service industries. While there is no statistically significant difference between the relative influence of the *market environment* factor in the hiring decisions of the secondary industry, the general services industry, or the managerial/personal service industry, this factor does have greater influence (importance) on the hiring decisions of the secondary industry than on the wholesale/retail-service industry.

Interestingly, there is no significant difference between the hospitality industry and the primary, secondary, general-services, wholesale/retail, or the managerial/personal- service industries in terms of the relative influence of either the *state-government-imposed cost of doing business* factor or the *market environment* factor in the making of hiring decisions.

Table 4-32 Results of T-tests Comparing the Influence of *State-Imposed Cost of Doing Business* Factor for Different Type of Business

State Imposed Cost of Doing Business Factor		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Primary Industry & Secondary Industry Comparison	Equal variances assumed	.485	.487	.473	227	.637	.1425	.3013
	Equal variances not assumed			.419	20.519	.679	.1425	.3397
Primary Industry & Wholesale /Retail Services Comparison	Equal variances assumed	.074	.785	1.495	244	.136	.5000	.3345
	Equal variances not assumed			1.464	20.971	.158	.5000	.3416
Primary Industry & General Services Comparison	Equal variances assumed	.310	.579	2.073	146	.040*	.6563	.3166
	Equal variances not assumed			1.891	22.340	.072	.6563	.3472
Primary Industry & Managerial /Personal Services Comparison	Equal variances assumed	.002	.962	2.063	247	.040*	.6820	.3306
	Equal variances not assumed			1.999	20.860	.059	.6820	.3411
Primary Industry & Hospitality /Tourism Industry Comparison	Equal variances assumed	.034	.853	1.156	118	.250	.3877	.3353
	Equal variances not assumed			1.095	24.130	.285	.3877	.3542
Secondary Industry & Wholesale /Retail Services Comparison	Equal variances assumed	5.902	.016	2.819	435	.005	.3576	.1269
	Equal variances not assumed			2.832	434.286	.005*	.3576	.1263

Table 4-32 (cont'd)

Secondary Industry & General Services Comparison	Equal variances assumed	.056	.813	3.627	337	.000*	.5139	.1400
	Equal variances not assumed			3.654	266.717	.000	.5139	.1406
Secondary Industry & Managerial /Personal Services Comparison	Equal variances assumed	3.299	.070	4.294	438	.000*	.5395	.1256
	Equal variances not assumed			4.315	437.894	.000	.5395	.1250
Secondary Industry & Hospitality /Tourism Industry Comparison	Equal variances assumed	.957	.324	1.596	309	.111	.2452	.1536
	Equal variances not assumed			1.561	186.525	.120	.2452	.1571
Wholesale /Retail & General Services Comparison	Equal variances assumed	3.418	.065	1.049	354	.295	.1563	.1491
	Equal variances not assumed			1.077	288.258	.282	.1563	.1451
Wholesale /Retail & Managerial /Personal Services Comparison	Equal variances assumed	.318	.573	1.399	455	.162	.1819	.1300
	Equal variances not assumed			1.399	454.715	.162	.1819	.1300
Wholesale /Retail & Hospitality /Tourism Industry Comparison	Equal variances assumed	.895	.345	-.683	326	.495	-.1124	.1645
	Equal variances not assumed			-.698	201.864	.486	-.1124	.1611
General Services & Managerial /Personal Services Comparison	Equal variances assumed	1.746	.187	.174	357	.862	.0256	.1475
	Equal variances not assumed			.178	284.839	.859	.0256	.1440

Table 4-32 (cont'd)

General Services & Hospitality /Tourism Industry Comparison	Equal variances assumed	.476	.491	-1.565	228	.119	-.2687	.1717
	Equal variances not assumed			-1.557	210.337	.121	-.2687	.1726
Managerial /Personal Services & Hospitality /Tourism Comparison	Equal variances assumed	.229	.632	-1.807	329	.072	-.2943	.1628
	Equal variances not assumed			-1.838	198.666	.068	-.2943	.1601

Table 4-33 Results of T-tests Comparing the Influence of the *Market Environment* Factor for Different Type of Business

Market Environment Factor		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Primary Industry & Secondary Industry Comparison	Equal variances assumed	.453	.501	-.924	227	.356	-.2743	.2969
	Equal variances not assumed			-.786	20.269	.441	-.2743	.3492
Primary Industry & Wholesale/Retail Services Comparison	Equal variances assumed	.007	.934	.145	244	.885	.0467	.3321
	Equal variances not assumed			.133	20.548	.895	.0467	.3504
Primary Industry & General Services Comparison	Equal variances assumed	.113	.737	-.290	146	.773	-.1014	.3502
	Equal variances not assumed			-.281	23.153	.781	-.1014	.3612
Primary Industry & Managerial/Personal Services Comparison	Equal variances assumed	.674	.412	.480	247	.631	.1773	.3692
	Equal variances not assumed			.501	21.1418	.622	.1773	.3541
Primary Industry & Hospitality/Tourism Industry Comparison	Equal variances assumed	.332	.566	-.073	118	.942	-.0261	.3564
	Equal variances not assumed			-.071	24.621	.944	-.0261	.3670
Secondary Industry & Wholesale/Retail Services Comparison	Equal variances assumed	2.073	.151	2.618	435	.009*	.3210	.0799
	Equal variances not assumed			2.627	434.873	.009	.3210	.0808

Table 4-33 (cont'd)

Secondary Industry & General Services Comparison	Equal variances assumed	4.971	.026	1.192	337	.234	.1729	.1450
	Equal variances not assumed			1.150	239.907	0.251	.1729	.1504
Secondary Industry & Managerial /Personal Services Comparison	Equal variances assumed	14.445	.000	3.375	438	.001	.4517	.1338
	Equal variances not assumed			3.412	428.346	.001*	.4517	.1324
Secondary Industry & Hospitality /Tourism Industry Comparison	Equal variances assumed	6.892	.009	1.596	309	.111	.2483	.1555
	Equal variances not assumed			1.514	173.196	.132	.2483	.1640
Wholesale /Retail & General Services Comparison	Equal variances assumed	.924	.337	-.982	354	.327	-.1481	.1508
	Equal variances not assumed			-.967	253.564	.335	-.1481	.1532
Wholesale /Retail & Managerial /Personal Services Comparison	Equal variances assumed	5.902	.016	.963	455	.336	.1306	.1356
	Equal variances not assumed			.964	446.926	.336	.1306	.1355
Wholesale /Retail & Hospitality /Tourism Industry Comparison	Equal variances assumed	1.891	.170	-.447	326	.655	-.0728	.1629
	Equal variances not assumed			-.437	182.530	.663	-.0728	.1665
General Services & Managerial /Personal Services Comparison	Equal variances assumed	1.277	.259	1.683	357	.093	.2787	.1656
	Equal variances not assumed			1.727	285.759	.085	.2787	.1614

Table 4-33 (cont'd)

General Services & Hospitality /Tourism Industry Comparison	Equal variances assumed	.173	.678	.400	228	.689	.0753	.1882
	Equal variances not assumed			.400	215.099	.689	.0753	.1882
Managerial /Personal Services & Hospitality /Tourism Comparison	Equal variances assumed	.403	.526	-1.127	329	.261	-.2034	.1805
	Equal variances not assumed			-1.168	208.128	.244	-.2034	.1741

Table 4-34 and Table 4-35 review the results of the paired industry T-tests. To summarize, hiring decisions in the primary industry are significantly more influenced by the *state-imposed cost of doing business* factor than are the general service and the managerial/personal service industries. The secondary industry is significantly more influenced by this factor than are the wholesale/retail, the general-services, and the managerial/personal-service industries. The *market environment* has greater influence on the secondary industry than on the wholesale/retail and the managerial/personal-service industries.

Table 4-34 Summary of T-tests for the State-Imposed Cost of Doing Business Factor by Different Type of Business

Ind.	Secondary		Wholesale/ Retail		General Services		Manag./Person. Services		Hospitality/ Tourism	
	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>
Prim.	0.473	0.637	1.495	0.136	2.073	0.040*	2.063	0.040*	1.156	0.250
Sec.			2.832	0.005*	3.672	0.000*	4.294	0.000*	1.596	0.111
W./R.					1.049	0.295	1.399	0.162	0.683	0.495
G. S.							0.174	0.862	1.565	0.119
M./P.									-1.807	0.072

Table 4-35 Summary of T-tests for the *Market Environment* Factor by Different Type of Business

Ind.	Secondary		Wholesale/ Retail		General Services		Manag./Person. Services		Hospitality/ Tourism	
	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>	<i>T</i>	<i>p</i>
Prim.	-0.924	0.356	0.145	0.885	-0.29	0.773	0.480	0.631	-0.073	0.942
Sec.			2.681	0.009*	1.150	0.251	3.412	0.001*	1.514	0.132
W./R.					-0.98	0.335	0.964	0.336	-0.447	0.655
G. S.							1.683	0.093	0.400	0.689
M./P.									-1.127	0.244

Hypothesis Five: The perceptions of state government, including the expertise of state personnel and the degree of satisfaction with state-government services, are influenced by the business type and size.

The purpose of testing this hypothesis is to examine (1) how the Michigan business community perceives state-government services and the expertise of state personnel and (2) whether or not their perceptions and degree of satisfaction is related to the type and size of businesses. Table 4-36 presents mean values of the perceptions of the quality of state-provided services and the expertise of state personnel by different size and type of businesses. The original responses on the mail questionnaire were re-coded from a five-point scale, 1 = strongly disagree to 5 = strongly agree, into three categories, 1 = disagree, 2 = neutral, and 3 = agree. The re-coding was performed, because a simple comparison was possible between those businesses that had negative and positive perceptions of the quality of state-government services and the expertise of state personnel.

The businesses that responded either “strongly disagree” or “disagree” with any of the three statements (Section Four in the questionnaire) regarding their perceptions of the

quality of state-government services and the expertise of state personnel were combined into the “disagree” category. Those businesses that were “undecided” represent the “neutral” category. Those who indicated that they “agree” or “strongly agree” were combined into the “agree” category.

Businesses, regardless of size, generally have negative perceptions of the quality of state-government services. Small businesses indicate the quality of state services at 1.92 on a three-point scale. Most of the industries have a negative perception. Large businesses (1.90) also show negative perceptions toward the quality of services provided by state government.

Most of the businesses, regardless of size and type, fairly agree that state government needs to market itself better about the products and services government offers to the business community. The Michigan business community also has a negative perception about the expertise of state-government personnel. Thus, most of the businesses, across various types and sizes of businesses, perceive that state employees do not have enough knowledge to be helpful for the business community.

Table 4-36 Perceptions of State- Services by Different Type and Size of Business

Business Size	Business Type		Quality of Services	Marketing of State Business Services	Expertise of State Agency Staff
Small Businesses	Primary Industry	Mean	1.91	2.27	2.55
		N	11	11	11
	Secondary Industry	Mean	1.93	2.59	2.46
		N	129	129	127
	Wholesale/ Retail Services	Mean	1.84	2.67	2.46
		N	162	162	161
	General Services	Mean	2.03	2.55	2.26
		N	102	102	101
	Managerial/ Personal Services	Mean	1.98	2.57	2.39
		N	160	161	160
	Hospitality/ Tourism Industry	Mean	1.82	2.66	2.52
		N	83	82	81
	Total	Mean	1.92	2.60	2.42
		N	647	647	641
Medium Businesses	Primary Industry	Mean	3.00	3.00	2.00
		N	1	1	1
	Secondary Industry	Mean	1.90	2.67	2.67
		N	21	21	21
	Wholesale/ Retail Services	Mean	1.44	2.50	2.56
		N	16	16	16
	General Services	Mean	2.00	2.57	2.57
		N	7	7	7
	Managerial/ Personal Services	Mean	2.00	2.55	2.36
		N	11	11	11
	Hospitality/ Tourism Industry	Mean	1.50	2.00	2.00
		N	2	2	2
	Total	Mean	1.81	2.57	2.53
		N	58	58	58

Note: 1 = disagree, 2 = neutral, 3 = agree

Table 4-36 (cont'd)

Large Businesses	Primary Industry	Mean	2.00	1.33	2.67
		N	3	3	3
	Secondary Industry	Mean	2.08	2.84	2.16
		N	25	25	25
	Wholesale/ Retail Services	Mean	2.00	2.50	2.17
		N	12	12	12
	General Services	Mean	2.23	2.23	2.62
		N	13	13	13
	Managerial/ Personal Services	Mean	1.58	2.63	2.68
		N	19	19	19
	Hospitality/ Tourism Industry	Mean	1.00	2.20	2.80
		N	5	5	5
	Total	Mean	1.90	2.53	2.43
		N	77	77	77
Total	Primary Industry	Mean	2.00	2.13	2.53
		N	15	15	15
	Secondary Industry	Mean	1.95	2.63	2.45
		N	175	175	173
	Wholesale/ Retail Services	Mean	1.82	2.65	2.45
		N	190	190	189
	General Services	Mean	2.05	2.52	2.31
		N	122	122	121
	Managerial/ Personal Services	Mean	1.94	2.57	2.42
		N	190	191	190
	Hospitality/ Tourism Industry	Mean	1.77	2.62	2.52
		N	90	89	88
	Total	Mean	1.91	2.59	2.43
		N	782	782	776-

Note: 1 = disagree, 2 = neutral, 3 = agree

Prior to testing for differences of perceptions among the businesses, a two-way ANOVA was performed to assess whether or not there is a two-way interaction between size and type of business. The results shown in Table 4-37 through Table 4-39 indicate no interaction effect between size and type of business, which could be related to perceptions of the quality of state-business services, the need for the state to better market its business services, and the expertise of state agency personnel. The absence of any significant interaction between size and type of business allowed for the use of one-way ANOVA tests for each independent variable.

Table 4-37 Two-Way Interactions between Business Size and Type for Service Quality

			Hierarchical Method				
			Sum of Squares	df	Mean Square	F	Sig.
Quality of Services	Main Effects	(Combined)	7.396	7	1.057	1.739	.097
		1=Small Business, 2=Medium Sizes	.671	2	.336	.552	.576
		3=Large Business					
		Industry Type	6.724	5	1.345	2.213	.051
	2-Way Interactions	1=Small Business, 2=Medium Sizes	10.059	10	1.006	1.655	.087
		3=Large Business * Industry Type					
	Model		17.455	17	1.027	1.690	.040
	Residual		464.279	764	.608		
	Total		481.734	781	.617		

Table 4-38 Two-Way Interactions of Business Size and Type for Needs for Marketing of State Services

			Hierarchical Method				
			Sum of Squares	df	Mean Square	F	Sig.
Marketing Of State Business Services	Main Effects	(Combined)	5.190	7	.741	1.591	.135
		1=Small Business, 2=Medium Sizes	.359	2	.179	.385	.681
		Business, 3=Large Business					
		Industry Type	4.831	5	.966	2.074	.067
	2-Way Interactions	1=Small Business, 2=Medium Sizes					
		Business, 3=Large Business * Industry Type	7.691	10	.769	1.651	.088
	Model		12.881	17	.758	1.626	.052
	Residual		355.990	764	.466		
	Total		368.871	781	.472		

Table 4-39 Two-Way Interactions between Business Size and Type for Perception of Expertise of Agency Staff

			Hierarchical Method				
			Sum of Squares	df	Mean Square	F	Sig.
Expertise of State Agency Staff	Main Effects	(Combined)	3.413	7	.488	.998	.431
		1=Small Business, 2=Medium Sizes	.701	2	.351	.718	.488
		Business, 3=Large Business					
		Industry Type	2.712	5	.542	1.110	.353
	2-Way Interactions	1=Small Business, 2=Medium Sizes					
		Business, 3=Large Business * Industry Type	8.339	10	.834	1.707	.075
	Model		11.753	17	.691	1.415	.122
	Residual		370.349	758	.489		
	Total		382.102	775	.493		

Table 4-40 suggests that there is no significant variation in perceptions of the quality of state-business services across different sizes of businesses; *i.e.* opinions on whether or not the state should better market its business services or try to improve the business community's perceptions of staff expertise. Based on the ANOVA, one can conclude that perceptions of state-business services and the expertise of state agency personnel are not related to the size of businesses. Regardless of size, businesses generally have a negative perception of state-government services for businesses.

Table 4-40 ANOVA for Perceptions of State Services by Size of Business

		Sum of Squares	df	Mean Square	F	Sig.
Quality of Services	Between Groups	.770	2	.385	.623	.536
	Within Groups	489.155	792	.618		
	Total	489.925	794			
Marketing Of State Business Services	Between Groups	.565	2	.283	.599	.550
	Within Groups	373.754	792	.472		
	Total	374.319	794			
Expertise of State Agency Staff	Between Groups	.591	2	.295	.603	.547
	Within Groups	385.166	786	.490		
	Total	385.757	788			

The ANOVA table (Table 4-41) shows no statistically significant differences across industries regarding perceptions of (1) the need for the state to better market its business services and (2) the expertise of state-agency staff. Conversely, the results of ANOVA indicate significant differences in perceptions of the quality of state-business services across different industries.

Table 4-41 ANOVA for Perceptions of State Services by Type of Business

		Sum of Squares	df	Mean Square	F	Sig.
Quality of Services	Between Groups	6.775	5	1.355	2.241	.048*
	Within Groups	547.925	906	.605		
	Total	554.701	911			
Marketing Of State Business Services	Between Groups	3.638	5	.728	1.543	.174
	Within Groups	427.168	906	.471		
	Total	430.806	911			
Expertise of State Agency Staff	Between Groups	3.162	5	.632	1.266	.276
	Within Groups	449.952	901	.499		
	Total	453.114	906			

T-tests were then performed to ascertain statistically significant differences between different industries. The results (Table 4-42) show that, on average, businesses in the general service industry (mean: 7.05) rate the quality of state-business services to be significantly better than wholesale/retail services (mean: 6.82) and hospitality/tourism businesses (mean: 6.77).

Table 4-42 T-tests for Perception of the Quality of State Service by Different Type of Business

Industry	Wholesale/Retail Services	Hospitality/Tourism Industry
General Services	$t = -2.85, p = 0.005^*$	$t = 2.889, p = 0.004^*$

For the most part, perceptions of state-government services to businesses are not influenced by type and size of business. Differences were, however, found among the general, the wholesale/retail, and the hospitality/tourism industries in their perceptions of

the quality of state-provided services for businesses. On average, businesses in the wholesale/retail, and the hospitality/tourism industries have more negative perceptions than do other industries examined in this study (see Table 4-36).

Hypothesis Six: Businesses that have had prior experience with state agencies are generally more satisfied with the quality of their services than are businesses that have had no or very limited prior experience with government agencies.

The intent behind testing this hypothesis is to determine whether or not businesses that have prior experience with state agencies have more positive perceptions about those agencies than do businesses that have no experience with these agencies. It is assumed that, in part, the negative perceptions of state agencies are due to a lack of exposure and familiarity.

Independent T-tests were employed to examine if there is a significant mean difference in the perceptions of businesses that have had and those that have not had prior experience with state agencies. Table 4-47 displays the mean perceptions of the quality of state-government-provided services and the expertise of agency personnel of businesses having had and not having had prior contact. Eight-hundred and fifty-one businesses (90.4 percent) of the companies that completed a questionnaire had some prior experience with at least one of the 12 state agencies (Table 4-43). Around 10 percent (9.6 percent) had no experience with any of these agencies. Almost 50 percent of businesses (44.1 percent) had contact with more than five agencies. The Michigan Employment Security Commission (contacted by 609 businesses) and the Michigan Department of

Treasury (contacted by 554 businesses) were the agencies that were most frequently contacted by businesses (Table 4-44).

Table 4-43 Number of State Agencies that Business have had Contact with

Number of Contacts	Frequency	Percent	Valid Percent	Cumulative Percent
NC	90	9.4	9.6	9.6
1.00	89	9.3	9.5	19.0
2.00	114	12.0	12.1	31.1
3.00	116	12.2	12.3	43.5
4.00	112	11.8	11.9	55.4
5.00	91	9.5	9.7	65.0
6.00	66	6.9	7.0	72.1
7.00	68	7.1	7.2	79.3
8.00	35	3.7	3.7	83.0
9.00	24	2.5	2.6	85.5
10.00	27	2.8	2.9	88.4
11.00	17	1.8	1.8	90.2
12.00	92	9.7	9.8	100.0
Total	941	98.7	100.0	
Missing Cases	12	1.3		
Total	953	100.0		

Note: NC = no contact, 1 = one agency contact; 12 = twelve agencies contact

Table 4-44 Total Number of Businesses that Have Had Contact with State Agencies

State Agencies	Total Number of Businesses Making Contact
Michigan Jobs Commission	296
Michigan Dep. of Natural Resources	422
Michigan Employment Security Commission	609
Michigan Department of Transport.	322
Michigan Occupational Safety & Health Agency	397
Michigan Travel Bureau	228
Michigan State Police	434
Michigan Department Of Social Services	395
Michigan Department of Agriculture	226
Michigan Department of Commerce	314
Michigan Department of Treasury	554
Michigan Department of Education	300

The results of mean perceptions (Table 4-45) and T-tests (Table 4-46) indicate that business perceptions of state agency services and staff expertise are not related to prior experiences with the agencies. Nor do they differ in their opinions as to whether or not state agencies need to better market the business services they provide. Businesses, regardless of their prior experiences with state agencies, generally feel that the state should better market its services that are available to businesses.

Table 4-45 Means Perceptions of State Services by Businesses that Have and Have Not Had Prior Experience with 12 State Agencies

Perception	Contact	N	Mean
Quality of Services	No Prior Experience	75	1.92
	Prior Experience	784	1.90
Marketing of State Business Services	No Prior Experience	78	2.67
	Prior Experience	783	2.59
Expertise of State Agency Staff	No Prior Experience	77	2.38
	Prior Experience	778	2.44

Note: 1 = disagree, 2 = neutral, 3 = agree

Table 4-46 Results of T-Tests for Differences in Perceptions between Businesses Having Had and Not Having Had Prior Contact/ Experience with 12 State Agencies

Perception		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Quality of Services	Equal variances assumed	9.844	.002	.221	857	.825	.0208	.0940
	Equal variances not assumed			.251	94.476	.802	.0208	.0826
Marketing of State Business Services	Equal variances assumed	3.871	.049	.910	859	.363	.0728	.0800
	Equal variances not assumed			1.015	98.194	.313	.0728	.0717
Expertise of State Agency Staff	Equal variances assumed	.697	.404	-.740	853	.460	-.0617	.0834
	Equal variances not assumed			-.768	93.260	.445	-.0617	.0803

On average, businesses participating in the study had prior contact or experience with five of the 12 state agencies (Table 4-47). Further statistical analyses were conducted to examine whether or not perceptions of state-government services and staff expertise are related to the number of agencies with which businesses have had experience. A bivariate correlation was performed to determine the relationship between the number of agencies with which companies have had experience and their perceptions of state business services and staff expertise.

Table 4-47 Mean and S. D. for Number of Agencies Contacted by Businesses and Business Perceptions of Quality of State Services, Need of Marketing, Staff Expertise

No. of Agencies and Perception	Mean	Std. Deviation	N
No. of Agencies Contacted	4.7790	3.5822	941
Quality of Services	1.90	.78	932
Marketing of State Business Services	2.59	.69	932
Expertise of State Agency Staff	2.43	.70	928

Note: 1 = disagree, 2 = neutral, 3 = agree

Interestingly, the results from the Pearson correlation analysis indicate a significant negative linear correlation between the number of agencies that a business has experienced and the perception of the quality of state-government services ($r = -0.091$, p -value = $0.005 < 0.01 \alpha$) and the need to better market government-provided services ($r = -0.079$, p -value = $0.016 < 0.05 \alpha$). The more agencies with which businesses have had experience, the more negative were their perceptions of the quality of agency services. The analysis also detected a significant negative linear correlation ($r = -3.45$, p -value = $0.000 < 0.01 \alpha$) between the perception of the quality of state-government services and the perception of the expertise of agency staff (the more negative the perception of the expertise of state personnel, the more negative was the perception of the quality of state services).

Table 4-48 Correlation between Extent of Contact with 12 State Agencies and Perceptions of Quality of State Services, Need of Marketing, Staff Expertise

		Number of Agencies Contacted by Businesses	Quality of Services	Marketing of State Business Services	Expertise of State Agency Staff
Pearson Correlation	No. of Agencies Contacted by Businesses	1.000	-.091**	-.079*	.037
	Quality of Services	-.091**	1.000	.051	-.345**
	Marketing of State Business Services	-.079*	.051	1.000	.030
	Expertise of State Agency Staff	.037	-.345**	.030	1.000
Sig. (2-tailed)	No. of Agencies Contacted by Businesses	.	.005	.016	.263
	Quality of Services	.005	.	.117	.000
	Marketing of State Business Services	.016	.117	.	.360
	Expertise of State Agency Staff	.263	.000	.360	.
N	No. of Agencies Contacted by Businesses	941	924	925	919
	Quality of Services	924	932	928	921
	Marketing of State Business Services	925	928	932	923
	Expertise of State Agency Staff	919	921	923	928

Note: **. Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The correlation results only indicate the strength of a linear association, but they do not provide a measure of comparison nor do they summarize the relationships between pairs of variables. ANOVA tests were performed to better describe and summarize the relationship between the extent of prior experience and the perceptions of state agencies. Table 4-49 shows the mean perceptions of state agencies by businesses grouped according to their number of contacts or experiences with state agencies. The following groups were formed: (1) businesses with no contact with any of the 12 agencies (9.6 percent); (2) businesses that had contact with one to five agencies (54.8 percent); and (3) businesses that had contact with six to 12 agencies (34.5 percent).

Table 4-49 Mean Perceptions of State Government Agencies by Businesses with Different Amount (Number of Agencies) of Contact with these Agencies

Number of Contacted Agencies		Quality of Services	Marketing State Business Services	Expertise of State Agency Staff
No Contact	Mean	1.91	2.67	2.40
	N	80	83	82
1 to 5 Agencies Contacted by Businesses	Mean	1.97	2.62	2.42
	N	516	516	512
6 to 12 Agencies Contacted by Businesses	Mean	1.79	2.52	2.45
	N	328	326	325
Total	Mean	1.90	2.59	2.43
	N	924	925	919

Note: 1 = disagree, 2 = neutral, 3 = agree

There is a significant mean difference ($F = 6.207$, $p\text{-value} = 0.02 < 0.05 \alpha$) in the perceptions of the quality of state-government services among businesses with different amounts of prior contact with the 12 agencies (Table 4-50). Generally, perception of the quality of state-agency service is lower as companies have more contact with more of the

12 state agencies. Businesses having had contact or experience with six to 12 agencies have significantly lower perceptions of the quality of state-agency services.

The results show that there is no significant difference in the perceptions of the expertise of state-agency personnel between businesses that have had or had not had prior contact experience with state agencies. However, businesses that have had contact with more state agencies generally have more negative perceptions of the quality of state-government services.

Table 4-50 Results of ANOVA Test of Business Perceptions by Number of Agencies Contacted by Businesses

		Sum of Squares	df	Mean Square	F	Sig.
Quality of Services	Between Groups	6.412	2	3.206	5.303	.005*
	Within Groups	556.821	921	.605		
	Total	563.233	923			
Marketing State Business Services	Between Groups	2.403	2	1.202	2.569	.077
	Within Groups	431.309	922	.468		
	Total	433.712	924			
Expertise of State Agency Staff	Between Groups	.216	2	.108	.218	.804
	Within Groups	455.007	916	.497		
	Total	455.223	918			

T-tests were then employed to ascertain statistically significant differences between different business groups that contacted a different number of agencies: (1) businesses having had no prior contact with any of the 12 state agencies; (2) businesses having had contact with one to five state agencies; and (3) businesses having had contact with six to 12 state agencies. The result ($t = 3.139$, $p\text{-value} = 0.001 < 0.05 \alpha$) (Table 4-51) shows a significant difference in the perception of the quality of state services

between businesses that had contact with one to five state agencies and those that had contact with six to 12 agencies. Businesses having had contact with six to 12 agencies have a more negative perception than do other group of businesses.

Table 4-51 Result of T-tests for Differences in Perceptions of Quality of State Services between Businesses with One to Five and Six to 12 State Agencies Contacted by Businesses

Dependent Variables Assumptions		Statistics					
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Quality of Services	Equal variances assumed	7.441	.007	3.210	842	.001	.18
	Equal variances not assumed			3.192	683.505	.001*	.18

Chapter 5

5. SUMMARY AND CONCLUSIONS

The primary purposes of this study were to (1) determine the extent to which various external environment factors influence business decisions, particularly in expanding the business by hiring of additional employees; (2) assess whether or not size or type of a business influences how a business responds to external factors, including state-government policies and actions; and (3) compare the perceptions that owners and managers of different types and sizes of businesses have of state agencies, their services and their expertise. Although previous research has examined the influence of state-government policies on manufacturing businesses, few studies have examined the impact of various environment factors on the decisions made by different types or sizes of businesses, including the services and the hospitality/tourism and small businesses. In part, this was due to a long-standing emphasis by economic development organizations on manufacturing businesses and the use of certain strategies (*e.g.* tax breaks and other financial incentives) to locate or remain large manufacturing companies in Michigan. This study was undertaken to compare the relative influence of various environment factors, including government actions, on expansion decisions, particularly hiring decisions, made by different types and sizes of businesses.

This chapter summarizes the results and discusses the implications of key findings. Implications and contributions of this research are also discussed. Limitations of the study are identified, and recommendations are made for future research.

5.1 Review of the Study's Theoretical Basis and Research Methods

The Review of the Literature, conducted as part of this study, determined that economic environment (*e.g.* consumer demand and labor supply) and the actions of state government have an important influence on businesses' decision making. As part of their effort to stimulate economic growth, state governments have offered various business incentives and implemented policies intended to stimulate employment. The majority of these incentives and programs are directed primarily at large manufacturing industries, while ignoring services and tourism/hospitality businesses.

Previous research on the effect of tax and other financial incentives has determined that consumer market demand and labor supply—not just taxes—have a significant influence on business decisions, including expansion and hiring. Previous research also indicates that state governments need to recognize the economic benefits of and encourage the development of the services, tourism/hospitality, and small businesses. Various authors have contend that this will require a better understanding of how these businesses respond to factors comprising the external environment, as well as to attraction and retention programs and incentives. This study was designed to provide state-level policy makers with information and analyses to help them to understand and anticipate how different types and sizes of businesses, including hospitality/tourism and small businesses, are likely to respond to various policies and programs.

A conceptual framework for this study was developed by integrating various approaches stemming from a stream of research concerned with the manner in which businesses respond to factors comprising the external environment. The core of the

conceptual framework is organization theory (OT), which holds that the decisions and behavior of organizations are influenced by factors in their external environment.

Organizations must acquire external resources, *e.g.* labor, for their continued survival and success. According to this theory, organizational environments are defined as objects and perceptions. The four components of the *objective environment* are: (1) customers; (2) suppliers of labor, material, equipment, and capital; (3) competitors; and (4) regulatory groups (government, government agencies, and unions). The *perceived environment* is defined in terms of managerial perceptions of environmental uncertainty.

Studies that were reviewed identified the perceived influence of consumer demand and labor supply (economic environment) on firms' hiring decisions. Research has shown that state employment-related regulations and laws are generally perceived by businesses as adding to the cost of doing business. Research on the effects of different economic development programs has found that taxes and financial incentives offered by states to businesses have little or no effect on strategic decisions, including business location, expansion, and the hiring of more employees. Availability of qualified labor, labor costs, and infrastructure have more influence on these decisions.

Even though there has been greater recognition of the economic development potential associated with small business and the service and the hospitality/tourism industries, there has been little research on factors that influence the development and expansion of these businesses. No comparative studies have been conducted that identify the relative influence of environment factors, policies, or incentives on different types and sizes of businesses, including hospitality/tourism businesses. As a consequence, there is

no empirical information to determine whether or not or in what ways small, services, and hospitality/tourism businesses are different from other types of businesses and how they differ in terms of their perception and response to the external environment and state-government policies and programs.

This study examined the importance and influence of three elements of the perceived environments: (1) the market environment, including consumer demand and labor supply; (2) employment-related legal and regulatory environment, including workers' compensation, unemployment insurance, healthcare benefits, unions, and other laws and regulations; and (3) state economic-development policy, particularly small-business and tourism development policies.

Focus groups were conducted first with 21 agriculture, manufacturing, and service-sector business owners and managers. The focus group sessions identified environment factors that are most important to different types and sizes of business and explored owner and manager perceptions of state policies and the quality of services provided to businesses.

The insights from the focus groups were then utilized to guide the development of a mail questionnaire that collected data on: (1) the perceived importance of various external environment factors in firms' hiring decisions; (2) owner or manager perceptions of services provided by 12 state agencies; and (3) the characteristics of the responding businesses. Thirty-three percent (968) of the businesses that received a questionnaire completed and returned it. To test the hypotheses, the responding businesses were categorized into six industries: (1) the primary industry; (2) the secondary industry; (3)

wholesale/retail industry; (4) the general-services sector; (5) the personal/managerial service sector; and (6) the hospitality/tourism industry. These responding businesses were also classified by size: (1) “small,” less than 50 total employees; (2) “medium,” 50 to 100 total employees; and (3) “large,” more than 100 total employees. Factor analysis, ANOVA, and T-tests were performed to test the six hypotheses.

5.2 Major Findings

Five general conclusions can be drawn from the results of the tests of the hypotheses.

First, the *market environment*—consumer demand and supply of labor—is generally more influential in business (expansion and hiring) decisions than are state regulations and programs. This is generally true across different sizes and types of businesses.

Second, small and large businesses, and small and medium businesses, differ in terms of the influence of the *market environment* factor. The *market environment* is of greater importance to medium- and large-sized businesses than to small-sized businesses. Different-sized businesses do not differ with regard to the importance that the *state-imposed cost of doing business* factor has in their decisions.

Third, businesses (*e.g.* agriculture, forestry, fishing, and mining) comprising the primary industry are more significantly influenced by the *state-imposed cost of doing business* factor, compared to the general-services (*e.g.* finance, insurance, real estate, transportation, and communications) and managerial/personal-services (*e.g.* medical,

legal, day-care, auto repairing, management, and consulting services) industries.

Secondary industry businesses (*e.g.* manufacturing and construction) are more significantly influenced by the *market environment* than are the wholesale/retail, general-services, and managerial/personal-service industries. In general, secondary industry businesses are more significantly influenced by both the *market environment* and the *state-imposed cost of doing business* factors than are service industries, except for the hospitality/tourism industry.

A fourth conclusion is that perceptions of the quality of state-government-provided services do not vary significantly across different types and sizes of businesses. Generally, businesses have negative perceptions about the quality of state-provided business services and the level of expertise of state-agency personnel. The wholesale/retail and the hospitality/tourism industries have more unfavorable perceptions of government services than does the general-services industry.

Fifth, businesses with prior contact, or experience, with 12 state agencies do not have significantly different perceptions of state-agency service quality or staff expertise than do businesses that have not had previous contact. However, the more agencies with which businesses have had contact, the more unfavorable are their perceptions of the overall quality of state-provided services. In this case, contact with more agencies does not improve the perceptions of service provided to businesses by the state agencies.

5.3 Implications and Contributions

The findings indicate that the *market environment*, such as consumer demand and access to qualified labor, is a more important factor in making business decisions that are related to expansion and the hiring of new employees than are government programs and incentives. Offering financial incentives or lower tax rates may have only limited influence on firms' decisions to expand by hiring additional employees. Tax and other financial incentives offered by states will be less effective if there is a shortage of qualified employees in those states. Government efforts that enhance the availability of qualified labor may have a greater affect. This may be even more important in the future as labor availability decreases and competition among businesses increases.

The sensitivity to labor supply and consumer demand also has implications for the hospitality/tourism industry, given rising competition and an expected shortage of front-line service workers. This could indicate that tourism development will be dependent on (1) the amount and success of state marketing efforts to expand markets and (2) the availability of unskilled and skilled service workers. This suggests that states need to look at more integrated strategies for attracting and retaining tourism businesses by providing favorable labor and market environments, *i.e.* strategies that focus less on financial incentives and more on market and labor-force development.

Given the finding that larger businesses (more than 50 employees) are significantly more sensitive to consumer demand and the supply of qualified labor than are small businesses (less than 50 employees), state government should consider a multi-dimensional business attraction and retention effort that also includes programs and

policies that improve market conditions. Limiting efforts only to offering tax and financial incentives may not be effective.

Traditionally, to attract and retain businesses in their states, many state authorities have focused on offering primarily financial incentives without evaluating the response sensitivities of particular industries. The findings of this study indicate, however, that different types and sizes of businesses are more or less sensitive to various external environment factors. For instance, expansion and hiring decisions by businesses in the primary and the hospitality/tourism industries are more sensitive to *state government-imposed cost of doing business* than are other service industries. Policy makers should, therefore, realize that the hospitality/tourism businesses respond differently to external environments than do other service businesses. This suggests that efforts to attract and retain different types and sizes of businesses (*e.g.* service, tourism, and small businesses) may require more industry- and size-specific policies, programs, and services.

The results of this study also indicates that Michigan businesses generally had negative perceptions of services and expertise of state agencies. Michigan businesses, regardless of type or size, generally have unfavorable perceptions of state agencies, the quality of their services, and the expertise of their personnel. These negative perceptions were more intense as businesses have contact with more agencies, which strongly suggests a need for state agencies to understand and focus more effort on enhancing perceptions of their services, including a better understanding of the criteria that are the basis for business perceptions. Since 1995 there have been significant efforts to reduce unnecessary regulations and to make state-provided business services more convenient

and higher quality. It would be useful to determine, if and to what extent business perceptions of state agencies has changed since 1995. This study could provide some base-line information to assess the changes that have occurred.

This research contributes to the body of literature in the realm of “business environment.” This study’s uniqueness is its comprehensive approach that compares the relative influence of external environments on different types and sizes of businesses. The findings of this study demonstrate that the influence of external environments varies by different size and type of business. Until now, most of the research in this area has examined the effect of specific external environments, including government programs and policies (*e.g.* taxes), particularly on large manufacturing companies. This research, however, provides a comprehensive examination of the relative influence of various external environments on different types and sizes of businesses and is particularly unique for distinguishing two external environment factors, the state-government-related regulation factor and the market environment factor, and for concurrently comparing the relative impact of these two factors on different sizes and types of businesses.

5.4 Limitations

The interpretation of the findings, conclusions, and implications of this research, which has been outlined in this chapter, is subject to a number of limitations not previously discussed.

First, this study investigated a limited number of external environment variables in developing an underlying structure of external environment factors. More variables

may be needed to better understand various external environment factors, *e.g.* technological and cultural environment variables.

Second, the data on the tourism industry was not adequate for drawing any general conclusions regarding perceptions of the tourism industry toward the external environment factors and state-government services. In this study, the tourism industry was categorized by the reported percentage of total sales attributed to tourist dollars earned from all types of businesses. Consequently, the way the questionnaire was designed might have created confusion in identifying tourism businesses. For instance, some construction businesses cannot be categorized in the tourism industry only because they reported some percentage of tourist earnings. This inability to adequately categorize tourism businesses marred the statistical analysis of the tourism industry in Michigan.

Third, this research identified differences in factors that impact the expansion decisions or the hiring of more employees by different types of firms, including tourism/hospitality businesses. A finding of this study, that shows that tourism/hospitality businesses are more sensitive to the *state-imposed cost of doing business* factor than are other service businesses, *e.g.* wholesale/retail, general, and personal/managerial services, is subject to further investigation. Although other business sectors are highly influenced by the *market environment* factor, tourism/hospitality businesses seem to be more influenced by the *state-imposed cost of doing business* factor than are other service businesses. These findings imply that policy makers need to be aware of the differences between the tourism/hospitality industry and other service

industries. As mentioned earlier, however, this study was not originally designed to focus on the tourism industry nor the factors that affect their expansion decisions.

Fourth, although this researcher assisted throughout the entire research process, except for the focus group sessions, the questionnaire and research were designed to fulfill the objectives of many interested parties, such as the Michigan 2000 Foundation and the Research Director, which is analogous to using secondary data. Some variables in the questionnaire could not, therefore, be used for this research. Also, this study initially was designed as a descriptive study on the relationship between the perceptions of the Michigan business community and state government policies, but subsequently evolved into a more comprehensive study. These problems limited the in-depth analyses regarding the main purpose of this study.

Fifth, this study's results could not be generalized or updated, because the analyses were done with 1995 data. Other limitations regarding data were presented in Chapter 3.

5.5 Directions for Future Research

First, a more in-depth study can be designed to better define the relationship between the external environment and business decision-making behavior—not just firms' hiring-decision behavior, *e.g.* location, relocation, and expansion in terms of facilities, as well as employment.

Second, the finding of differences in sensitivity to the factors tested in this study suggests that additional research would be beneficial, *e.g.* research that investigates more

precisely and in more depth the factors that impact tourism business decisions related to expansion and hiring. Factors that should especially be investigated are how tourism businesses evaluate market growth potential, perceptions of availability of qualified employees, and how perceptions of these factors influence their business decisions.

Third, the results of this study provide numerous hypotheses that can be evaluated with an improved sampling method, improved measures, and better methodologies, *e.g.* using different size scheme to avoid skewed sample toward small businesses, utilizing correlation technique in hypotheses testing (Hypothesis Six), and structuring models.

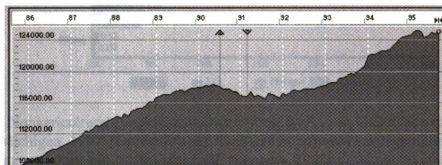
Fourth, potential lag effects need to be considered. For instance, the results found regarding perceptions of businesses toward state-government services may be manifested within a certain period of time. The businesses' perceptions of the external environments, including state government policies, can be updated by longitudinal research to capture lag effects.

APPENDICES

Appendix A

U.S. and Michigan Economy and Employment Environment

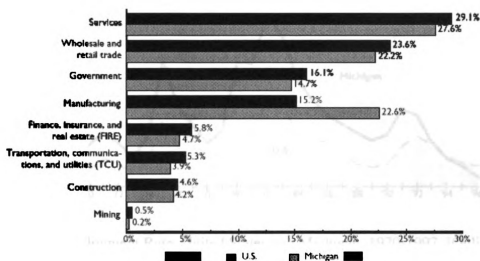
A brief overview of U.S. economic trends is necessary to better understand the economic /market environment of businesses and its impact on them. The U.S. economy from the early 1980s to 90s is characterized as the longest economic expansion since the Second World War. Figure-A 1 shows U.S. civilian employment growth during the past 10 years.



Source: Trend in U.S. Civilian Employment (thousands)—1986-1996. [Online Image] Available <http://www.globalexposure.com/pages/a0m442.html>, August 4, 1998.

Figure-A 1 Trend in U.S. Civilian Employment (thousands)—1986-96

After a recession during the period 1990-1991, the economy resumed and continued to improve. During the last 10 years, the U.S. economy has experienced a fundamental change. Manufacturing jobs have declined in number, while service-based employment has continued to grow (see Figure-A 2).

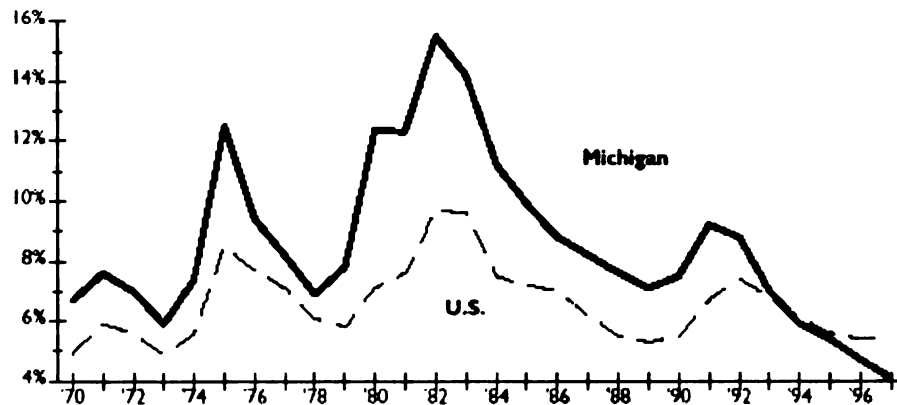


Source: Nonagricultural Employment Distribution, by Sector, United States and Michigan, 1997. [Online Image] Available <http://www.michiganinbrief.org/text/appendix/append-F.html/afex3.gif>, August 4, 1998.

Figure-A 2 Non-agricultural Employment Distribution by Sector, U.S. & MI, 1997

As the nation moves from manufacturing-based industrial economy to a service economy, states' economic policies are affected in many ways (*e.g.* policies focusing more on service and tourism industries) (Deming, 1996).

The following snapshot of Michigan's economy will be useful as a baseline for this study. In 1992, the Michigan unemployment rate was 8.8 percent, above the national rate of 7.4 percent; by 1997, state's unemployment rate was not only down to 4.2 percent, but also was below the national rate of 4.9 percent. In fact, the Michigan unemployment rate has been below the national average since 1994, which was the first time since 1966 that this had happened. In brief, the unemployment rate in Michigan had been consistently higher than the U.S. average rate, but in 1994 there was a dramatic reversal and the state rate has been lower than the nation-wide rate (see Figure-A 3).

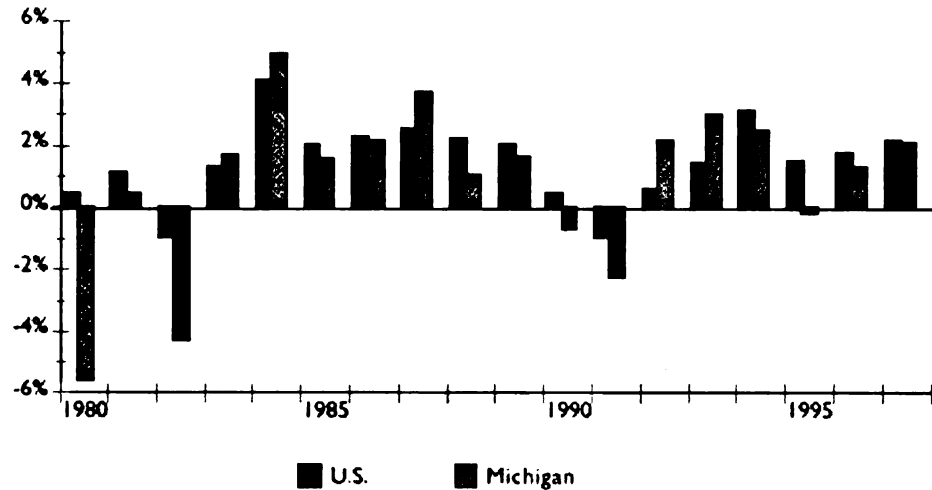


Source: Unemployment Rate, United States and Michigan, 1970-1997. [Online Image] Available <http://www.michiganinbrief.org/text/appendix/append-F.html/afex2.gif>, August 4, 1998.

Figure-A 3 Unemployment Rate, U.S. & MI, 1970-1997

Although the job growth rate in Michigan exceeded that of the U.S. during the 1980s, the state's rate declined during the recession of the early 1990s (see Figure-A 4). Until recent years, however, Michigan's business environment had been ranked near the bottom among all the states. For instance, it was ranked 40th from 1980 to 1990. A study of state manufacturing climates by Grant Thornton Company (1986) also found Michigan ranked last among the 29 "high manufacturing intensity" states due to high production costs. In another study of state-local tax systems conducted in 1992 by Public Sector Consultants, Inc., Michigan ranked 47th among the 50 states in business climate due to overall tax burden, marginal income tax rates, public-service expenditures, workers' compensation rates, and unemployment insurance costs. Conversely, recently Michigan was ranked 6th in new plants and expansion with 400 in 1996 and was recognized as a leading state as an attractive business location with 1,285 new plants and expansions

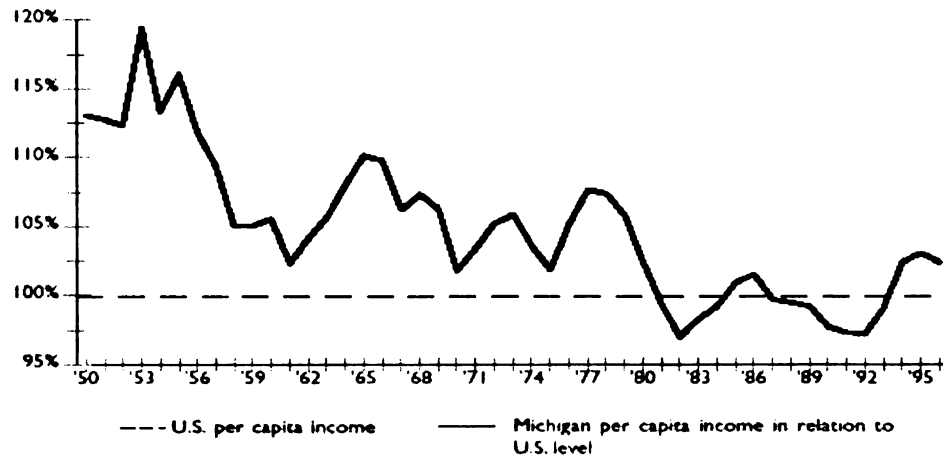
announced and 278 new manufacturing facilities announced in 1997 (Public Sector Consultants, Inc. 1998).



Source: Employment Growth Rate, United States and Michigan, 1980-1997. [Online Image] Available <http://www.michiganinbrief.org/text/appendix/append-F.html/afex1.gif>, August 4, 1998.

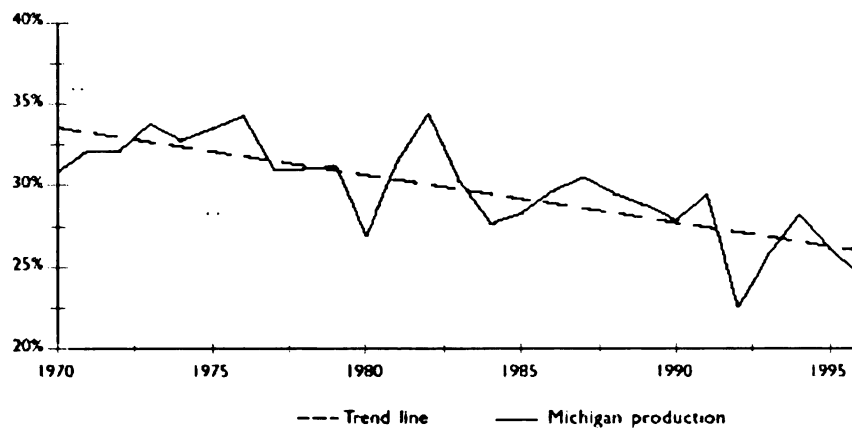
Figure-A 4 Employment Growth Rate, U.S. & MI, 1980-1997

The Michigan economy and employment growth have been described as “static, neither moving up or down,” from the early 1990s until 1994 when manufacturing employment was at the highest point in a decade (Cary, Fulton, and Hymans, 1996, p. 213). Michigan’s per capita income data indicate the decline of the automobile industry. It exceeded that of the U.S. from 1950s to 1970s (see Figure-A 5). However, it fell below the national average in the 1980s, when the automobile industry began experiencing serious trouble and layoffs (see Figure-A 6).



Source: Michigan per Capita Income as Percentage of U.S. per Capita Income, 1950-1996. [Online Image] Available <http://www.michiganinbrief.org/text/appendix/append-F.html/afex4.gif>, August 4, 1998.

Figure-A 5 Michigan per Capita Income as Percentage of U.S. per Capita Income, 1950-1996



Source: Michigan Motor Vehicle Production as a Percentage of U.S. Production, 1970-1996. [Online Image] Available <http://www.michiganinbrief.org/text/appendix/append-F.html/afex6.gif>, August 4, 1998.

Figure-A 6 Michigan Motor Vehicle Production as a Percentage of U.S. Production, 1970-1996

Appendix B

Michigan Businesses Questionnaire

1995 SURVEY OF MICHIGAN BUSINESSES

SECTION ONE

This section is to determine those factors that influence the decision by this business to hire more **FULL-TIME EMPLOYEES**. For purposes of this research, full-time employees are defined as those who work at least 35 hours a week. Please circle the number beside each factor based on the following scale:

How MUCH do the following factors influence your company's decision to hire more FULL-TIME EMPLOYEES?

	Not Appli- cable NA	Very Little 1	2	3	4	Very Much 5
1. State labor laws and regulations.	NA	1	2	3	4	5
2. State regulations that govern workplace safety.	NA	1	2	3	4	5
3. State taxes.	NA	1	2	3	4	5
4. Access to credit.	NA	1	2	3	4	5
5. Labor unions.	NA	1	2	3	4	5
6. Workers compensation.	NA	1	2	3	4	5
7. The paperwork required by state government.	NA	1	2	3	4	5
8. Access to qualified labor.	NA	1	2	3	4	5
9. The start of the school year prior to Labor Day.	NA	1	2	3	4	5
10. Unemployment insurance.	NA	1	2	3	4	5
11. The demand for the products/services offered by the business.	NA	1	2	3	4	5
12. The cost of benefits (e.g., health care).	NA	1	2	3	4	5
13. Other, please specify: _____		1	2	3	4	5
14. _____		1	2	3	4	5
15. From the list of factors numbered above, what are the top three that have the most effect on the decision to hire more FULL-TIME EMPLOYEES . Please write the appropriate number in the space provided:						

____ Most Important ____ Second Most Important ____ Third Most Important

PLEASE CONTINUE TO THE NEXT PAGE—>

SECTION TWO

With the help of a group of business people, we have identified the following eight actions that state government could take to make it easier to conduct business in Michigan. Please RANK the following actions in order of their importance to this business (with 1 being the most important and 8 being the least important to this business):

- | | |
|-----------------------------------|--|
| _____ Conduct Regulatory Reform | _____ Repeal Minimum Wage Law |
| _____ Provide Tax Relief | _____ Reduce the Bureaucracy of State Government |
| _____ Reform Workers Compensation | _____ Consistently Enforce State Regulations |
| _____ Conduct Insurance Reform | _____ Improve the Quality of Services Offered by State Gov't |

Are there any other actions that state government should take that are more important to this business than those eight that are listed above? _____

SECTION THREE

This section is to determine how satisfied this business is with the contact it has had with various state agencies/institutions in the last twelve months. Please circle the number beside each agency based on the following scale:

Overall, how SATISFIED or DISSATISFIED is THIS BUSINESS with the contact it has had with various state government agencies/institutions in the last twelve months?

	NC No Contact	1 Very Satisfied	2 Sat- isfied	3 Undecided	4 Disant- isfied	5 Very Dissatisfied			
1. Michigan Jobs Commission				NC	1	2	3	4	5
2. Michigan Department of Natural Resources				NC	1	2	3	4	5
3. Michigan Employment Security Commission				NC	1	2	3	4	5
4. Michigan Department of Transportation				NC	1	2	3	4	5
5. Michigan Occupational Safety and Health Agency				NC	1	2	3	4	5
6. Michigan Travel Bureau				NC	1	2	3	4	5
7. Michigan State Police				NC	1	2	3	4	5
8. Michigan Department of Social Services				NC	1	2	3	4	5
9. Michigan Department of Agriculture				NC	1	2	3	4	5
10. Michigan Department of Commerce				NC	1	2	3	4	5
11. Michigan Department of Treasury				NC	1	2	3	4	5
12. Michigan Department of Education				NC	1	2	3	4	5

Please provide any additional comments: _____

SECTION FOUR

In this section we want to know how this business perceives the quality of state government services. Please circle the number below each statement based on the following scale:

How MUCH do you AGREE or DISAGREE with the three statements below?

- | | 1 | 2 | 3 | 4 | 5 |
|---|----------------------|----------|-----------|-------|-------------------|
| | Strongly
Disagree | Disagree | Undecided | Agree | Strongly
Agree |
| 1. The quality of services offered by state government meets the needs of this business. | 1 | 2 | 3 | 4 | 5 |
| 2. State government needs to market itself better so that this business will know more about the products/services it has to offer. | 1 | 2 | 3 | 4 | 5 |
| 3. State government employees do not know enough about this type of business to be of any help. | 1 | 2 | 3 | 4 | 5 |

SECTION FIVE

The purpose of this section is to find out more about the nature of this business. Please circle the number which best describes this business for each pair of terms listed below. For example, if ALL OF THE PEOPLE employed by this business are an even mix of unskilled and highly skilled workers, you might do the following:

- | | Unskilled | 1 | 2 | 3 | 4 | 5 | Highly Skilled |
|--|-----------|---|---|---|---|---|--------------------------|
| <u>THE NATURE OF THE WORK DONE BY THIS BUSINESS IS:</u> | | | | | | | |
| Muscle-Powered | 1 | 2 | 3 | 4 | 5 | | Brain-Powered |
| Repetitive | 1 | 2 | 3 | 4 | 5 | | Creative |
| Simple | 1 | 2 | 3 | 4 | 5 | | Complicated |
| <u>THE PEOPLE EMPLOYED BY THIS BUSINESS ARE:</u> | | | | | | | |
| Unskilled | 1 | 2 | 3 | 4 | 5 | | Highly Skilled |
| Generalists | 1 | 2 | 3 | 4 | 5 | | Specialists |
| Easily Replaced | 1 | 2 | 3 | 4 | 5 | | Hard To Replace |
| Working On The Premises | 1 | 2 | 3 | 4 | 5 | | Working Out Of Car/ Home |
| <u>THE BUSINESS IS CHARACTERIZED AS:</u> | | | | | | | |
| Low Technology | 1 | 2 | 3 | 4 | 5 | | High Technology |
| Goods-Producing | 1 | 2 | 3 | 4 | 5 | | Services-Producing |
| Open "9-to-5" | 1 | 2 | 3 | 4 | 5 | | Open Round The Clock |
| <u>THE PRODUCTS/SERVICES OFFERED BY THIS BUSINESS ARE:</u> | | | | | | | |
| Sold Locally | 1 | 2 | 3 | 4 | 5 | | Sold Globally |
| Standardized | 1 | 2 | 3 | 4 | 5 | | Customized |
| <u>DECISION-MAKING IS:</u> | | | | | | | |
| Management Driven | 1 | 2 | 3 | 4 | 5 | | Customer Driven |
| Bureaucratic | 1 | 2 | 3 | 4 | 5 | | Non-Bureaucratic |

PLEASE CONTINUE TO THE NEXT PAGE—>

SECTION SIX

The questions in this section are designed to help us better understand and appropriately classify this business.

1. Your job title: _____
2. To which of the following business sectors does this firm belong? (please check all that apply)

☐ Agriculture	☐ Forestry	☐ Fishing	☐ Services
☐ Retail Trade	☐ Mining	☐ Construction	☐ Manufacturing
☐ Wholesale Trade	☐ Finance	☐ Insurance	☐ Real Estate
☐ Transportation	☐ Communications		

 Other, please specify: _____
- 2a. In your own words, please describe this business (e.g., hotel, landscaper, tool & die): _____

3. The ownership of this business is:

☐ Sole Proprietor	☐ Partnership	☐ Co-Operative	☐ Corporation
--	--------------------------------------	---------------------------------------	--------------------------------------

 Other, please specify: _____
4. Does this business have locations in other Michigan counties? ☐ Yes ☐ No
5. What year was this particular business established? _____
6. This business is open/operational: ☐ Year Round ☐ Seasonal
7. Please indicate the number of FULL-TIME EQUIVALENTS (FTE's) that were on payroll for the first week in June, 1994 and 1995. Please calculate FTE's by taking the total number of hours worked by ALL EMPLOYEES (both full- and part-time) and then DIVIDE BY 35 HOURS.

First Week June, 1994	First Week June, 1995
Full-time equivalents ==> _____	_____
8. Would you consider this business as part of the tourism industry? ☐ Yes ☐ No
- 8a. If yes, what percentage of total sales can be attributed to tourist dollars? _____

PLEASE READ THE FOLLOWING STATEMENT AND SIGN YOUR NAME BELOW:

I have agreed to voluntarily complete this questionnaire, as long as my name and the information pertaining to this business are kept strictly confidential.

Signature

Date

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE!

Appendix C

Reminder Post Card

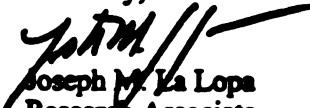
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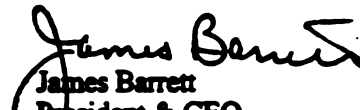
Dear Business Owner/Manager:

We recently sent you a letter and questionnaire asking for your participation in a research project being conducted by Michigan State University, in cooperation with the Michigan Chamber of Commerce. The purpose of the research is to determine how state government can better serve the needs of the business community. Your response is critical to this research because your business was selected at random to represent the views of over 300,000 Michigan businesses. To be a participant in this very important research, simply complete and return the questionnaire we recently sent to your business.

If you have already completed and returned your questionnaire, please accept our sincere thanks for your participation. If by chance you did not receive the questionnaire, or it got misplaced, please contact the Tax Policy Center at Michigan State University (517/353-0793), and we will immediately send you another one.

Sincerely,

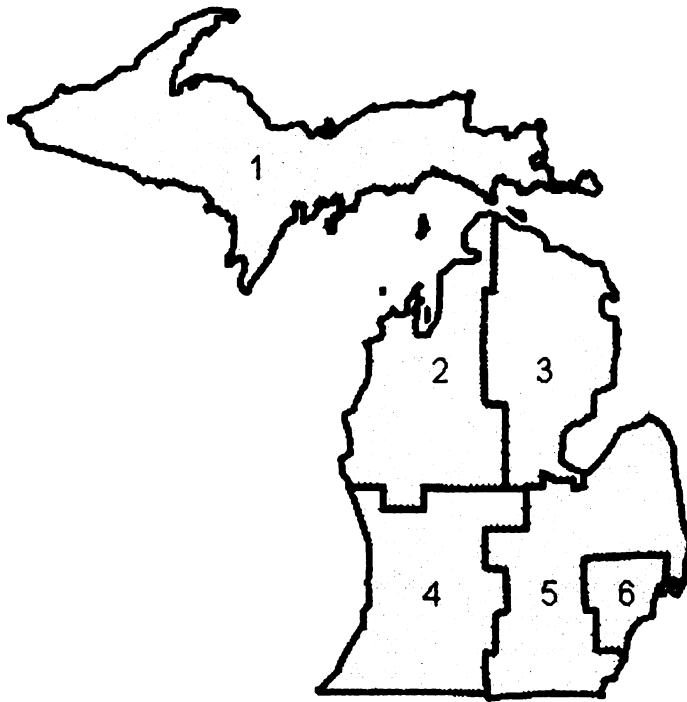

Joseph M. La Lopa
Research Associate
MI State University


James Barrett
President & CEO
MI Chamber of Commerce

Michigan State University
Tax Policy Center
172 Natural Resources Building
East Lansing, MI 48824-1222

Appendix D

Regions for Cluster Sampling



Key:

- 1 = Upper Peninsula
- 2 = Northwest
- 3 = Northeast
- 4 = Southwest
- 5 = Southeast
- 6 = Metro Detroit

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