

1: Partnership Distributions, Inside and Outside Basis

Start studying Selling Building Partnerships Chapter 5. Learn vocabulary, terms, and more with flashcards, games, and other study tools.

Page 26 Share Cite Suggested Citation: *Surviving Supply Chain Integration: Strategies for Small Manufacturers*. The National Academies Press. Supply chain management makes use of a growing body of tools, techniques, and skills for coordinating and optimizing key processes, functions, and relationships, both within the OEM and among its suppliers and customers, to enable and capture opportunities for synergy. Supply chain management attempts to combine the best of both worlds, the scale and coordination of large companies with the low costs, flexibility, and creativity of small companies. The focus of supply chain management must evolve in response to changing business environments and evolving product life cycles. Different interactions among participants are required during each phase of the product life cycle, from inception through recycling. The supply chains for products in new markets must be flexible to respond to wide fluctuations in demand both in quantity and product mix. Products in mature, stable markets require supply chains that can reliably deliver products at low cost. Thus, effective supply chain management must be responsive to these changing conditions to ensure that the supply chain evolves accordingly. Traditional marketing strategies involving in-store sales and price promotions created great variations in product demand. Working both internally and with suppliers and customers, the company created a heralded partnership with Wal-Mart, virtually eliminated price promotions, and streamlined its logistics and continuous replenishment programs. These initiatives reduced variations and uncertainties in demand, thereby reducing the need for surge production capacities and large inventories. Page 27 Share Cite Suggested Citation: It may be helpful to think of the participants as the divisions of a large, vertically integrated corporation, although the independent companies in the chain are bound together only by trust, shared objectives, and contracts entered into on a voluntary basis. Unlike captive suppliers divisions of a large corporation that typically serve primarily the parent corporation, independent suppliers are often faced with the conflicting demands of multiple customers. The technological and investment problems faced by SMEs in attempting to deal with these conflicting demands are discussed in Chapter 9. All supply chains are integrated to some extent. One objective of increasing integration is focusing and coordinating the relevant resources of each participant on the needs of the supply chain to optimize the overall performance of the chain. The integration process requires the disciplined application of management skills, processes, and technologies to couple key functions and capabilities of the chain and take advantage of the available business opportunities. Goals typically include higher profits and reduced risks for all participants. Traditional unmanaged or minimally managed supply chains are characterized by 1 adversarial relationships between customers and suppliers, including win-lose negotiations; 2 little regard for sharing benefits and risks; 3 short-term focus, with little concern for mutual long-term success; 4 primary emphasis on cost and delivery, with little concern for added value; 5 limited communications; and 6 little interaction between the OEM and suppliers more than one or two tiers away. Integrated supply chains tend to recognize that all parties should benefit from the relationship on a sustainable, long-term basis and are characterized by partnerships with extensive and open communications. A well integrated system of independent participants can be visualized as a flock of redwing black birds flying over a marsh. Without any apparent signal, every bird in the flock climbs, dives, or turns at virtually the same instant. That is an integrated system! Supply chain members, in a similar manner, must react coherently to changes in the business environment to remain competitive. Supply chain integration is a continuous process that can be optimized only when OEMs, customers, and suppliers work together to improve their relationships and when all participants are aware of key activities at all levels in the chain. Forces Driving Increased Integration The following worldwide trends and forces are driving supply chains toward increased integration: Having substantially improved the efficiencies of internal operations, OEMs are seeking further cost reductions by improving efficiency and synergy within their supply chains. Shorter product life cycles. The Model-T Ford, for example, was competitive for many years. A personal computer PC is state of the art for less than a year,

and the trend toward shorter product life cycles continues. Faster product development cycles. Companies must reduce the development cycle times of their products to remain competitive. Early introduction of a new product is often rewarded with a large market share and sufficient unit volumes to drive costs down rapidly. Globalization and customization of product offerings. Customers the world over can increasingly afford and are demanding a greater variety of products that address their specific needs. Mass customization has become the new marketing mantra. Increasing customer affluence and tougher competition to supply their needs have led to demands for higher overall quality. These increased demands on OEMs for improvements in product design, manufacturing, cost, distribution, and support are being imposed, in turn, on their supply chains. Based on the premise that bypassing resellers, building products to order, and reducing inventories would result in a lower cost, more responsive business, Dell has grown into one of the Page 29 Share Cite Suggested Citation: Nevertheless, it is squeezed into such a narrow business niche that, from some perspectives, its very survival seems tenuous. Dell competes with many capable and, in some cases, lower cost competitors, has virtually no proprietary technology, and must deal with exceedingly robust suppliers, including Intel and Microsoft. Inventories have been dramatically reduced through extensive sharing of information, a prudent choice given the risk of technological obsolescence and reductions in the cost of materials that can exceed 50 percent a month. Component inventories are monitored weekly throughout the supply chain and, when there are deviations from plan, the sales force steers customers, by means of discounts, if necessary, toward configurations for which there are adequate supplies. Thus, abundant, timely information is used to work the front and back ends of the supply chain simultaneously. Speed is a critical factor in the computer industry, especially in the area of inventory. In the late s, Dell measured component inventories in weeks. In , they were measured in days. They may soon be further reduced through real-time deliveries so that, as components are used, they are automatically and immediately replaced. The reduction in inventory not only lowers requirements for capital, it also enables rapid changeovers to new product configurations because no old parts must be used up. Faster time to market for new products translates into increased revenues and profits. The change in emphasis from inventory levels to inventory velocity throughout the supply chain has been made possible, in part, by the Internet. This extensive integration of the supply chain can be viewed as a shift from vertical corporate integration to a virtually integrated corporation Magretta, Vertical integration was essential in the early years of computer manufacturing when the supplier base was not well established and assemblers had little choice but to design and build components and assemble the entire end product in house. Proprietary component technologies were a main source of competitive advantage, although in some cases they had little to do with creating value for the customer. As the industry matured, multitudes of component suppliers became eager to Page 30 Share Cite Suggested Citation: Leveraging investments by these suppliers has freed Dell to focus on delivering complete solutions to its customers. However, because these components are available to all PC assemblers, it has become harder to compete in terms of end-product differentiation. Thus, a high premium has been placed on speed and process efficiency, blurring the traditional boundaries between supplier, manufacturer, and customer. For instance, peripherals, such as monitors, keyboards, speakers, and mice, need not be gathered in one location prior to shipment to the customer. Manufactured by separate suppliers and labeled with the Dell logo, shippers gather them from all over North America, match them overnight merge-in-transit , and deliver them as complete hardware sets to customers as if they had come from the same location. By , the success of the Dell model, as might be expected, was causing problems for competitors, including Fujitsu America, which had large inventories and high shipping costs Washington Post, May 2, Customers had to wait 10 days for laptops, while competitors were delivering in five. In response, Fujitsu moved its distribution center from Portland, Oregon, to Memphis, Tennessee, and turned distribution over to FedEx Corporation, the parent company of Federal Express. In direct response to orders, FedEx coordinates the shipment of components from worldwide suppliers, oversees the assembly of PCs, and ships them out, all in three or four days. By early , the cycle time on the ground was eight to twelve hours, and the goal was to reduce it to four hours. Fujitsu has essentially eliminated geographic proximity as an issue and has made maximum use of the benefits of globalization, including low cost. Even with the premium price of express shipping, this modification of the Fujitsu supply chain saved the company millions of dollars, slashed

inventories by about 90 percent, and increased profits by 25 percent. Most important, these changes have enabled Fujitsu to compete effectively with Dell for Internet sales directly to consumers. However, as is evident from these examples, these innovations in supply chain integration can also impose large burdens on suppliers in terms of responsiveness, inventories, and management of their own supply chains. Thus, most supply chain integration efforts to date have been very limited in scope. Some of the major costs are listed below: A highly integrated, interdependent supply chain that consists primarily of sole-source suppliers practicing just-in-time manufacturing with minimal inventories is highly reliant on the timely delivery of quality components and services. Failure by one participant to deliver can rapidly bring other parts of the chain to a halt. This happens, on occasion, even to the best suppliers and logistics providers. Automakers, for example, who are under constant pressure to reduce costs, have tightened their supply chains to the point that they typically have less than a one-day supply of parts at final assembly facilities. Thus, a breakdown anywhere in the supply chain has the potential of bringing production to a halt. Potential threats, including storms, power outages, terrorism, computer hackers, disruptions in communications, and equipment breakdowns, can be very difficult to predict and costly to prepare for. In another example, the earthquake that shook Taiwan in September showed how a power supply disruption in one country can have worldwide reverberations through an entire industry. Supply chain participants must individually and collectively assess the probability of production-stopping events and their tolerance for risk, which must be balanced against the savings from increased sole-sourcing, tighter integration with remaining suppliers, and reduced inventories and production capacities. Thus, although good communications and resource sharing can be helpful in preparing for and responding to disruptions, supply chain participants must be careful to avoid unacceptable levels of risk in their zeal for integration. Small and medium-sized manufacturing enterprises should develop operating strategies based on an appropriate balance between supply chain performance and risk; assess the probability and effects of potential threats to their supply chains; and maintain sufficient though sometimes expensive slack, redundancy, and flexibility to keep the potential threats at manageable levels. Page 33 Share Cite Suggested Citation: Inventories can be reduced by increasing the speed at which materials move through the supply chain and by reducing safety stocks. For example, if the costs of maintaining inventory are approximately 1 percent per month and if an integrated supply chain can reduce inventory levels by 30 percent, the savings, shared among the participants, can be substantial. Another common benefit of supply chain integration is a reduction in transaction costs. Reductions in supplier redundancy can reduce product costs by increasing production levels at remaining suppliers and reducing the costs of managing the supply chain. Although this can also increase investment and management burdens on suppliers, the delegation of responsibility and authority to entities closer to the action can result in improved decision making, as long as good communications are maintained throughout the chain. Other potential benefits of supply chain integration are listed below:

2: CHAPTER 5 - GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL HAZARD MANAGEMENT

Chapter 5 - Partnerships. To choose the special adjustment, the partner must have received the distribution within 2 years after acquiring the partnership.

Although some of the research is abstract, much of it has prescriptive implications for organizations attempting to manage their relations with other organizations in order to ensure survival, gain market power, and otherwise improve their performance. Conceptualizing Organizational Environments Organization Sets, Fields, and Networks In the s and s, organizational scholars began conceptualizing relations between organizations in order to study them. Several levels of analysis have become standard ways of discussing interorganizational relations. The first, the organizational set, is an application of a social psychological model, the role set, to an organization. Just as an individual has a set of different roles he or she plays with other people—spouse, parent, worker, friend—an organization is conceived as having a set of relations with other organizations Blau and Scott, Organizational set analysis concentrates on the relationships of a single organization to see how those relationships affect its activities and performance. In many situations, however, organizational outcomes are the consequences of groups of organizations acting in ways that affect each other. Variously called, with somewhat different meanings, the action set Aldrich and Whetten, , the interorganizational field Warren, , and the industry system Hirsch, , this unit of analysis looks at relationships among groups of organizations that interact over time in ways that affect each other. Although both pharmaceutical and recording companies have important similarities, for example, gatekeepers physicians and disc jockeys who mediate between themselves and their customers, the drug industry has been far more successful than recording companies in protecting their interests in patent protection, distribution, and pricing. Page Share Cite Suggested Citation: The National Academies Press. Network analysis differs from organizational set and industry analysis in seeking not only to identify the relationships among organizations but also to examine the character and structure of those relationships, usually by modeling them mathematically Nohria and Eccles, The premise is that the networks within which an organization is embedded both constrain and provide opportunities for action. One body of research looks primarily at nonprofit community service organizations Laumann and Papi, ; Galaskiewicz, ; Knoke and Rogers, and has the advantage of looking closely at the multiple and overlapping ties between organizations in a community, usually a geographically bounded setting. These studies tend to show how interdependencies among organizations that exchange money, people, political support, and other resources come to shape possibilities for action. Another important factor shaping network research is the observation that new high-technology industries, notably biotechnology and electronics, are characterized by intense patterns of formal and informal network relations. Barley and colleagues Instead, relevant technical knowledge is more efficiently obtained by direct access to research conducted elsewhere" and made available through interorganizational relations. The authors note, too, that whereas some high-technology industries such as electronics build on scientific communities such as chemistry and physics that have been integrated into industrial manufacturing since the nineteenth century, biotechnology is founded on a wholly new community of participants. Recent advances in recombinant DNA and hybridoma cell formation suddenly brought cutting-edge molecular biology into the center of the pharmaceutical and agricultural industries. In biotechnology, far more than electronics, however, strategic alliances between small research firms and well-funded larger corporations are common because of the expense Page Share Cite Suggested Citation: They conclude that "the way in which a firm participates in the network is integral to its strategy for survival and growth" p. Another and perhaps most important factor in prompting research on organizational networks is the observation that business networks have been widely successful in the global economy. Regime Analysis Another approach to analyzing interorganizational cooperation, international regimes, was developed from the need to understand cooperation in the less structured global system. An international regime is a set of explicit or implicit principles, norms, rules, and decision-making procedures around which actor expectations converge and that help coordinate actor behavior Krasner, ; see also Mayer et al. Some examples include the regimes surrounding nuclear nonproliferation, the

law of the sea, and the nascent international environmental regime Young, Regime analysis represents a movement away from purely institutional analysis Kratochwil and Ruggie, to one that looks at broader and sometimes less formal patterns of cooperation Kahn and Zald, Organizations play several roles in the regime. Certainly, cooperation among organizations can be the driving force behind the development of an international regime or define its structure; an example is the coordination among national health agencies, nongovernmental organizations, and the World Health Organization. Yet organizations, and cooperation among them, can also be the consequence of or institutionalized manifestation of coordination between different groups or states in the world. International cooperation can also occur outside or independent of organizations, providing the analyst with a broader conception of behavior than is present by a pure concentration on institutional behavior. A focus on organizations and cooperation is also enhanced by understanding the broader milieu in which organizations operate and cooperation emerges Haas, The limitations of the regime framework, however, include its difficulty with accommodating change, its being too issue-specific to permit generalizations, and its limited applicability to more structured, less anarchic environments than global politics for a more detailed critique of this approach, see Strange, Firms in a market are more likely to compete, and not collaborate, when the market is stagnant or declining and resources are increasingly scarce Porter, Competition is also more likely in situations in which institutional factors—such as a legal system that supports antitrust regulation—or deeply rooted distrust among members of an industry, militates against collaboration. A number of forces, many of which are on the increase around the world, prompt organizations to collaborate with each other. Resource dependency theory Pfeffer and Salancik, argues that, because a focal organization must depend on other organizations for the inputs it needs to survive, it may be in its interest to attempt to manage the organizations on which it is dependent. They argue that mergers and acquisitions, which represent total control of another organization, are only the most extreme of an array of strategies that organizations can employ to coordinate with or impose their interests on other organizations. They may use a series of "bridging strategies" Scott, Transaction cost economics Williamson, argues that, under conditions of high uncertainty and small numbers of alternative suppliers, collaboration can improve cost-effectiveness and therefore improve the profitability and competitive performance of an organization. Other economists argue that collaboration weakens an organizational field by reducing competition Scherer, ; Caves, , thus leading to higher prices and less innovation. Although much of the recent impulse for mergers and acquisitions was fueled by the development of the junk bond market in the s and the use of purely financial criteria to mate corporate partners, a decade of failed alliances has made organizational executives less sanguine about entering into this type of long-term, permanent acquisition. Financial synergy may be a necessary component of a successful relationship for a market-based firm, but compatible leadership style, strategic orientation, and culture are necessary as well, as discussed below Sankar et al. This is no less true of not-for-profit organizations, especially those with a strong missionary culture such as religious organizations and the military, in which value clashes can doom an alliance Wallis, Frameworks For Understanding Interorganizational Processes Reasons for Collaborating Both research and practice show that organizations enter into relations with each other for a wide range of reasons: As steps toward linking up with another organization begin, the parties involved are faced with at least two clear yet perplexing paradoxes, ones of vulnerability and control Haspeslgh and Jemison, Organizations have to decide how much they will cede control to their partner. The paradox of vulnerability—trust versus self-preservation—is concerned with whether or not the recent proliferation of interorganizational collaborations represents a new spirit of cooperation or a new level of cost-cutting and market exploitation. From one perspective, collaboration is valuable in and of itself, opening gateways to such activities as organizational learning and transformation. To facilitate this transformation, however, partners must openly share information about strategic objectives, organizational resources, and internal challenges, which paradoxically increases vulnerability to acquisition, loss of market share, proprietary control of valued resources, and other sources of strategic advantage. Nevertheless, an avoidance of collaborations may also represent a costly choice, with inefficiencies and insufficient learning possibilities. The paradox of control—stability versus synergy—concerns the tension

Page Share Cite Suggested Citation: An organization therefore risks undermining the synergistic objectives

that led it to enter a collaboration in the first place when it institutes tight controls that may be intended to guarantee success. This is especially true when a collaborating organization uses less measurable objectives for indicating success, such as organizational learning and management and work styles. A Partial Taxonomy Of Interorganizational Governance Structures As a guide to understanding interorganizational relations, we present a taxonomy of interorganizational governance structures, based on work by Kahn and Harrigan. Although not all-encompassing, it is comprehensive enough to provide a road map for how to understand interorganizational relations. The following taxonomy moves from relatively less interdependent relations to relations in which interdependence and its management are key. Organizations pool their resources to procure access to information, technology, or some other service too costly to acquire alone Kanter, Tasks including financial support are distributed among the participants, and the proceeds are returned to participants according to the terms of the agreement. No separate entity is created for the management of this relationship. Cross-Licensing and Distribution Arrangements. Organizations enter into agreements formalizing the limited sharing of technology or other product attributes such as brand names or markets. These arrangements are strictly contracted and bounded in scope and duration. Two or more organizations "owners" combine varying resources to form a new, distinct organization the "venture" in order to pursue complementary strategic objectives. This new organization is jointly owned and managed, and proceeds are distributed between the venture and owners according to a formula agreed on by the owners. However, in a strategic alliance, a new firm is not created. Although interdependence is, of course, required for a joint venture to work effectively, the characteristic of interdependence is essentially the same as that required for any organization, whereas for a strategic alliance to work effectively, two distinct organizations must learn to cooperate and depend on each other. Whereas each participating organization is responsible for one area of the production system, the participating organizations are highly dependent on one another for the ultimate delivery of their product. This form of collaboration concerns the alliance of certain organizational functions such as production, and typically not multiple functions that encompass more of a particular business or business units as in a strategic alliance. An organization acts independently to create a distinct entity, from within its own ranks, for the purposes of expansion, innovation, or diversification. When action is then taken to establish a joint venture with another organization, the description above of a joint venture would then apply. A special case of interorganizational relations; when they are established, problems of interdependence between organizations become issues of within-group functioning and are directly related to organizational performance. Acquisitions are preferred to ventures and alliances when shared ownership of initiatives is not desired. Table presents the types of interorganizational relations, along with some of the situational determinants of their formation and their likely outcomes Harrigan, ; Porter and Fuller, The responses to these three questions suggest the degree of managed interdependence appropriate to the relationship between partners and, indirectly, the ideal governance structure for the relationship.

3: Building HOME: A HOME Program Primer - Training Manual and Slides - HUD Exchange

View Lab Report - Chapter Production dev., partnership and team building from MARK at University of Wollongong, Australia. MARK TOURISM MARKETING CHAPTER 5- DESTINATION.

Forms of Business Ownership I. About , new businesses are started in the U. How you form your business can make a difference in your long-term success. Each form of business ownership has its advantages and its disadvantages. Ease of starting and ending the business. All you need is a permit from the local government. Being your own boss. Working for yourself is exciting. Sole proprietors have taken the risk and deserve the credit. Leaving a legacy behind for future generations. Retention of company profits. Profits of the business are taxed as the personal income of the owner. Funds available are limited to the funds that the sole owner can gather. Many owners are not skilled at record keeping. The owner has no one with whom to share the burden. If the sole proprietor dies or leaves, the business ends. A partnership is a legal form of business with two or more owners. All states except Louisiana have adopted the Uniform Partnership Act to replace laws relating to partnerships. Shared profits and losses. The right to participate in managing the operations of the business. Two or more people pool their money and credit. Partners provide different skills and perspectives. Partners are four times as likely to succeed as sole proprietorships. All profits of partners are taxed as personal income of the owners. Each general partner is liable for the debts of the firm, no matter who was responsible for causing those debts. Sharing profits can cause conflicts. Disagreements can arise over division of authority, purchasing decisions, and so on. Who gets what and what happens next? Many ventures avoid the disadvantages of these forms of ownership by forming corporations. A corporation also enables many people to share in the ownership of a business without working there. Limited liability is probably the most significant advantage of corporations. Limited liability means that the owners of a business are responsible for losses only up to the amount they invest. To raise money, a corporation sells ownership stock to anyone interested. Corporations may also find it easier to obtain loans. Corporations can also raise money from investors through issuing bonds. Corporations have the ability to raise large amounts of money. They can also hire experts in all areas of operation. They can buy other corporations in other fields to diversity their risk. Corporations have the size and resources to take advantage of opportunities anywhere in the world. The death of one or more owners does not terminate the corporation. Selling stock changes ownership. Corporations can offer benefits such as stock options. Corporations can raise money from investors without getting them involved in management. A corporation must prove all its expenses and deductions are legitimate. A corporation must keep detailed records. Corporate income is taxed twice. The corporation pays tax on income before it can distribute any to stockholders. The stockholders pay tax on the income they receive from the corporation. States often tax corporations more harshly than other enterprises. A corporate owner must file both a corporate tax return and an individual tax return. Large corporations sometimes become inflexible and too tied down in red tape. Incorporation may cost thousands of dollars and involve expensive lawyers and accountants. There are less expensive ways of incorporating in certain states. Many businesspeople feel the hassles of incorporation outweigh the advantages. By incorporating, individuals such as doctors and lawyers can save on taxes and receive other benefits of incorporation. Small corporations do not share all the same advantages and disadvantages of large corporations. It is usually wise to consult a lawyer when incorporating. The average time needed to incorporate is approximately 30 days. S corporations have shareholders, directors, and employees, but the profits are taxed as the personal income of the shareholders. They also have the benefit of limited liability. Have no more than 75 shareholders. Have shareholders who are individuals or estates and are citizens or permanent residents of the U. Have only one class of outstanding stock. The top personal income tax rate is almost four points higher than the highest corporation rate. Many slower-growing businesses have selected the S corporation form. The benefits of S corporations change every time the tax rules change. Personal assets are protected. LLCs can choose to be taxed as partnerships or as corporations. LLCs do not have to comply with ownership restrictions as S corporations do. Flexible distribution of profits and losses. LLCs do not have the same reporting requirements as a corporation. LLC ownership is

nontransferable. LLCs have to identify dissolution dates in the articles of organization. LLC members must pay self-employment taxes on profits. The paperwork required is more than what is required of sole proprietors. The merger mania reached its peak in 2006. Most of the new deals involve companies trying to expand within their own fields. Rather than merge or sell to another company, some corporations decide to maintain control of the firm internally. The funds borrowed are used to buy out the stockholders in the company. Employees, managers, or group of investors then become the owners of the firm. Merger mania has also involved foreign companies purchasing U.S. companies. In addition to the three basic forms of business ownership, the text discusses two special forms of ownership: Some people would like to own their own businesses but want more assurance of success. C Franchising may be an alternative. The most popular businesses for franchising are restaurants, retail stores, hotels and motels, and automotive parts and service centers. You are still your own boss, although you must follow the rules, regulations, and procedures of the franchise. You get instant recognition and support. Franchisees get assistance arranging financing and learning to keep records. Some franchisors will even provide financing to potential franchisees. Historically, the failure rate for franchises has been lower than that of other business ventures. You should carefully research any franchise before investing. Most franchises will demand a fee to obtain the rights to the franchise. The franchisor often demands a large share of the profits, or royalty, based on sales not profit. In recent years franchisees have been banding together to resolve their grievances with franchisors. Franchisees must also look out for competition from fellow franchisees. Many franchisees face restrictions in the reselling of their franchises. Franchisors often insist on approving the new owner, who must meet their standards. Most franchisors are not large systems; many are small, obscure companies. There has been an increase in complaints to the FTC about franchisors that delivered little or nothing that they promised. Women are becoming franchisors as well.

4: Chapter Building Partnerships - Global Leadership: The Next Generation [Book]

Workbook Chapter 5: Partnerships 5 An unincorporated organization may make an explicit election at any time during its life in a statement that is attached to, or incorporated into, a properly executed and timely filed Form

Assessment Information source, data display Considering land form, slope, land use, vegetation cover, and wind direction, what area is likely to be affected if this volcano erupts? How many people could be affected? Index of information List all available hospitals located not within 30 km radius of the volcano Status reporting Periodic assessment of volcanic activity Monitoring change How has the savanna desert boundary changed in the last 5 years? What changes in climate and land use could account for the on-going desertification process? Analysis Research support What factors determine landslide activity in this area? According to these factors, what zones are susceptible to landslides? Forecasting What population centers are likely to be affected by this hurricane? What is the most likely lava flow path in case a volcanic eruption occurs? Policy development What areas in this growing urban region should be restricted to low-density development? Aid allocation Where should mitigation strategies be prioritized? Project evaluation If erosion trends continue, what will be the economic impact on the project? What are the costs and benefits of instituting or not instituting erosion control measures? The situation has since been aggravated by increasing rural migration, frequently occupying steep areas of questionable stability. City officials had two urgent tasks: By entering data on land use, landslide hazard susceptibility, topography, slope, and protected areas, a GIS database was created to identify areas potentially suitable for expansion. City officials could then set minimum criteria for areas of new development i. Using the GIS, areas meeting the criteria could be identified. The number of people living in extreme and high landslide hazard areas could also be determined, providing the basis for selecting priority areas for implementing prevention measures relocation, construction, retrofitting, etc. For this exercise, the advantages of using GIS as compared to manual mapping techniques are obvious. Not only does GIS afford great time savings for the overlay, display, assessment, and analysis of hazardous areas, but GIS also offers flexibility in selecting the minimum standards. Tentatively selected standards can be tested for feasibility and adjusted. Using a GIS, this process would take minutes, while with manual methods, it would take a week of redrafting and recalculations In a landslide study for example, data on slope steepness, rock composition, hydrology, and other factors can be combined with data on past landslides to determine the conditions under which landslides are likely to occur see Chapter To analyze all possible combinations with manual techniques is a virtually impossible task; thus, typically only two factors are analyzed, and the composite units are combined with the landslide inventory map. With GIS, however, it is possible to analyze an almost unlimited number of factors associated with historical events and present conditions, including present land use, presence of infrastructure, etc. The resultant landslide hazard zonation map provides planners with a designation of the degree of landslide propensity for any given area. For floods, GIS and remotely-sensed data can be used to identify flood-prone areas, map floods in progress, delineate past floods, and predict future ones see Chapters 4 and 8. GIS can combine information on slope, precipitation regimes, and river carrying capacity to model flood levels. Synthesis information obtained from such an integrated study can help planners and decision-makers determine where to construct a dam or reservoir in order to control flooding. Likewise, a map depicting volcano locations may be entered into the GIS; volcano attributes such as periodicity, explosivity index VEI, past effects, and other attributes may be ascribed to each volcano record in a relational database. Finally, information on other hazards can be combined to create new sub-sets of data, each one complying with different pre-established minimum standards for development. GIS Applications at the Local Level At this level, GIS can be used in prefeasibility and feasibility sectoral project studies and natural resource management activities to help planners identify specific mitigation measures for high-risk investment projects and locate vulnerable critical facilities for the implementation of emergency preparedness and response activities. In population centers, for example, large scale GIS databases resolutions of m² per cell or less can display the location of high-rise buildings, hospitals, police stations, shelters, fire stations, and other lifeline elements. By combining these data with the hazards assessment map-previously

collected or generated through GIS-planners can identify critical resources in high-risk areas and adequately formulate mitigation strategies. When equitable distribution of land is defined in terms of earning capacity instead of parcel size, land capability and management practices have to be factored into the equation. Eight maps were coded into the system: Three synthesis maps were produced by overlaying present land use with land capability, present land use with erosion risk, and the development strategy with erosion risk. The GIS exercise showed that large commercial parcels occupied 76 percent of all the lands suitable for unrestricted or moderately restricted cultivation, while 99 percent of the land occupied by small farms was classified as severely restricted or worse. The decision on the type of information to be used for depicting the variables included in the database-whether real-scaled or symbolic dimensions-becomes a critical decision at this level. Real-scaled data should prevail over symbolic information, especially at this level of planning, when precise information is required to assess the risk posed to specific investment projects. Floodplain elevations, for example, represented in scales smaller than 1: Any GIS calculations or operations that include cell measurements area, perimeter, distance, etc. Floodplain hazard assessments combine thematic maps e. Use of a Geo-referenced Database A geo-referenced database GRDB is a microcomputer-based program that combines data management with map display, allowing planners and emergency managers to graphically display hazard impact areas, and relate them to people and property at risk. Although a GRDB also uses points, lines, and polygonal symbols to represent data, it differs from a GIS in that it does not have overlaying capabilities.

More Than Words: Stories Of Courage Retardation, the death penalty, and Johnny Paul Penry Ument scanner
ocr cam Citizens of nowhere : the evil of statelessness Athletic Protection Equipment with Powerweb Trans
Fatty Acids School business plan sample Measurement concepts and data analytic tools Arizona out-of-doors
cookery Edward Parrish Ware Where in the U.S.A. is Carmen Sandiego? Introducing the pilgrimage
experience W.H. Auden Reads His Poetry Napoleons Commanders (2): c.1809-15 Mutual legal assistance in
criminal matters with Barbados Immunosuppression (I) Education of the architect Trip into Illusion
(Publications of the Grain Message Foundation ; 3) A supplement to The queen-like closet, or, A little of
everything Sociology of crime Alcohol advertising does not target children Jacob Sullum Blossoms in the
snow Vendettas victim Stilwells Independent Holiday Cottages 1999 (Stilwells) Counseling the defiant child
Pilgrimage pattern in Exodus Capt Jepp and the Little Black Book A free quarren in the palace : Tesseks tale
Dave Wolverton Colne Valley, Radicalism to Socialism Bader Reading and Language Inventory and Readers
Passages Pkg. (4th Edition) Strategies for world class products Modern engineering statistics lawrence lapin
1997 Thinking in enterprise java Haunting tales from Japan Parallel architectures for data/knowledge-based
systems Outlines Highlights for Major Problems In The Era of The American Revolution,1760-1791 by
Brown, ISBN Middle school algebra practice The heathen at home and overseas : issues of race and class Ipad
manual model mlmn2ll a Rushdie haroun and the sea of stories Dorsrv1.fau.edu gcef support
mypos_student_instruction_manual. _blank