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Reinvention and Innovation


In the rapidly changing business environment of today, it has become necessary for the organizations to move from boundary-oriented thinking and continuous improvement towards a systemic reinvention of their models. This is believed to provide the disruptive competitive advantages necessary to survive and thrive in an environment where the ‘rules of the game’ change quickly in almost all companies and industries. While identifying the generic components of the different business models, this paper discusses the relevance of the reinvented business models for competitive advantage and outlines the challenges faced by some companies in developing new business models. The authors also review the eclectic approaches to developing new business models and provide a systemic framework for business model reinvention, finally proposing a tool for operationalizing and evaluating new business models—the wheel of business model reinvention. It is argued that a new business model arises not only from reconfiguring an organization’s core business strategy and dynamic capabilities, but also from making sense of socio-cultural dynamics and opportunity gaps, reinventing of customer value propositions, and reconfiguring the business network and its value chain. The wheel of business model reinvention includes critical dimensions of new customer value propositions, technological innovation, reconfiguration of the value system, and the economic feasibility of a new business model. The authors illustrate how the wheel would have enabled Encyclopedia Britannica to adopt the new CD-based business model and helped it offer a totally different customer value, while also showing that Wal-Mart, Dell, BRL Hardy, and IKEA changed the ‘rules of the game’ to become the drivers of their industries.


While most organizations in recent years have been working systematically towards reinventing their business processes, very few of them have gone for a continuous management innovation. This paper addresses three questions: (a) why is management innovation so vital? (b) What makes it different from other kinds of innovation? (c) How can a company become a blue-ribbon management innovator? It is argued that while technology and product innovation deliver small-caliber advantages, a management breakthrough can deliver a potent advantage to the innovating company and produce a seismic shift in industry leadership. For creating enduring success, however, it requires to meet three conditions: The innovation should be based on novel principle challenging management orthodoxy; it is systemic, encompassing a range of processes and methods; and, it is part of an ongoing programme of invention, where progress compounds over time. The management processes that turn management principles into everyday practices include strategic planning, capital budgeting, project management, hiring and promotion, executive development, and knowledge management. The paper shows how Whirlpool turned itself into a serial management innovator. In most companies, management innovation is ad hoc and incremental. A systematic process for producing bold management breakthroughs must include commitment to a big management problem, search for new principles, deconstruction of management orthodoxies, and exploitation of the power of analogy, the author adds.


Adaptation to broad environmental changes requires companies to reconfigure the way they combine resources and capabilities into their products and services. Current literature on strategic renewal tends to cluster around two alternative conceptions: as corporate transformation and as continuous innovation. This paper discusses design-driven renewal through a four-phased model that presents continuous innovation and corporate transformation as the outcome of different stages of a broader renewal process acting at two levels. At a product level, autonomous or induced projects in design centres or by external designers stimulate continuous renewal of product lines, inspired by a common set of principles and stylistic guidelines. Innovation at this level, may gradually push an expansion in the competitive scope of the company or adjustments in its competitive strategies. At an organizational level, changes in the design philosophy may co-evolve with a re-orientation of the strategic course of the company. Promoting design-driven renewal means recognizing that design is not simply a matter of enhancing functionality or styling, but is a powerful symbolic medium for expressing or reinforcing a unique set of meanings embodied in a brand. The design philosophies of Nokia, Apple, Electrolux, Philips, Sony, Swatch, etc., are discussed indicating the importance of design philosophy of a company co-evolving with its competitive scope, broad mission, and fundamental strategic goals.


In recent years, there has been a shift in strategy among Asian firms toward a more knowledge resource-based model that allows them to acquire and apply knowledge and technology for advantageous rent-generation. This paper examines the innovation strategies driving Asian firms’ investment in the US, particularly focusing on the subsidiaries in the US with headquarter units in South Korea, Singapore, and Taiwan. As Asian firms are late adopters of technology internationally, the sample of firms tends to undertake incremental to moderate innovations that are largely centered on market opportunities allowing them to differentiate their products and applications from their competitors. The research questions thus focused on identifying Asian firms’ strategic capabilities in innovation, the sources of their innovation capability, and the relationship between the firms’ innovation capability and business performance. The results of an ordered probit regression model of innovation performance suggests that new product development and marketing capability make a significant contribution to increased US patents among Asian firms while applied research is only marginally significant in explaining firms’ innovation capability. The major sources of innovation
capability revolve around a tacit understanding of technology and products rather than more explicit forms of knowledge. The empirical findings also suggest that stronger business performance is associated with new product development and marketing capability.


Hypercompetition made the companies realize that the basis for competitive advantage is innovation, i.e., the application of knowledge to produce new knowledge. To get the most out of organizational knowledge resources, linking knowledge management and innovation becomes a necessity. This paper develops a theoretically grounded model that describes how the compatibility between knowledge manipulating activities and the type of knowledge associated with innovation will affect the success of the innovation process. The cognitive fit theory is used to develop a knowledge-based model for the effectiveness of the innovation process. The basic model of cognitive fit views problem solving as the outcome of the relationship between the external representation of the problem and the problem-solving task. A match between problem representation and problem-solving task results in cognitive fit which in turn improves the problem-solving performance. As the outcomes of an innovation process are the embodiment of knowledge in the form of processes or products, problem representation and problem-solving tasks are classified into knowledge-creation and knowledge-utilization processes. The K-creation activities including socialization and externalization, deal with knowledge that is more tacit, systemic, and complex, while K-utilization activities including combination and internalization, deal with explicit, autonomous, and simple knowledge. From a practising manager’s perspective, the model suggests guidelines for determining the knowledge manipulating activities to support the specific types of innovation outcomes.


A firm’s innovation cultures are vital in shaping and responding adequately to the call of innovation in the marketplace. Ericsson has traditionally been an engineering company paying limited attention to R&D, until mechanical switches were replaced by digital alternatives. Initially Ericsson’s R&D strategy structure revolved around its engineering and technological needs. As the company grew in size and developed its global operation, it underwent a shift from traditional Swedish innovation culture to embrace a new found innovative perspective. This paper traces the evolution of Ericsson’s R&D culture, illustrating how a major telecommunication company may sustain or lose its innovation capacity in an intensely competitive global market. The study was conducted over five years through interviews with a number of senior staff of Ericsson and collecting archival data. The company’s radical restructuring since 2000 and the emerging R&D structure saw major directional change to both innovation culture and the path to innovation. Ericsson’s handset business is discussed to show how the company diminished its ability to exploit its technological advantage and was eventually forced into forming a partnership with Sony, who, at the time, had not achieved any success for its mobile handsets. It is argued that R&D management in a technology-intensive company such as Ericsson requires both divergence and convergence in structuring and organizing R&D activities. R&D strategies need to co-evolve with innovation strategies and capabilities of the firm, the authors add.


In light of the advent of the knowledge society, businesses are faced with a large transition from focusing solely on developing new products and services, to also strategically innovating to improve their business processes and performance. This paper presents a new point of view regarding the knowledge management and leadership theory of new product development. The dynamism of knowledge creation process in new product development is examined through in-depth case studies of three traditional Japanese companies—Fujitsu, J-phone, and Mitsubishi Electric Corp.— which developed a product cable of new multimedia systems using technology resulting from merging and integration of different technologies and business models. The network of strategic communities inside and outside the companies, including customers, made it possible for this development process to occur at an unprecedented speed. In the case studies, the analysis of knowledge creation focuses on the degree and process to which the networks of the strategic communities created new knowledge based on new technologies and practices that were diffused beyond the boundaries of the strategic communities. The conceptual framework includes six aggregate broader concepts: involvement, embeddedness, resonance of value, strategic community formation of speed, dialectic leadership, and synthesizing capability. One of the keys to producing innovation in a knowledge-based society is how companies can organically and innovatively network different knowledge created from the formation of a variety of strategic communities inside and outside the company, and acquire the synthesizing capability through dialectical leadership.


Firms generally engage in innovation for achieving an increase in quality of products, a reduction in production cost, capture or create new product markets, and reduce the firm’s reliance upon unreliable factors of production. This article investigates the forces that lead some firms to engage in more innovative activities than others and examines the types of routines associated with this decision. It is argued that the conditions under which innovation is desirable for firms will vary according to external pressures and constraints and its inherited internal capabilities. Once management identifies the desired balance between innovative and prosaic activities, it may seek to realize it through routines associated with certain styles of management, the nature of work culture in relation to learning and appropriation. Many of the earlier studies had followed the Schumpeterian tradition, focusing...
on size and market structure as possible causes of innovativeness. However, with the advent of new quality measures of industry knowledge and managerial styles, these factors have been found to be less important. The results from a survey of 360 large Australian firms have shown that factors common to all industries, such as the extent of learning, knowledge spillovers, appropriability, and managerial style, are more important than industry-specific factors. Becoming a more innovative firm does not mean spending more money on innovative activities. It also requires a set of complementary managerial and work practices within the organization, the author concludes.


Open source innovative project is one in which the innovator, a priori, waives rights to the critical knowledge component of the innovation and makes the knowledge generally available to those interested via other means of diffusion. This paper examines why innovators sometimes deliberately choose not to protect their innovations and explains the underlying rationales and motives of the phenomenon. Innovations are stated to emerge in a continuum of private-collective models of agency, ranging from purely private interests on one end to purely collective interests at the other. The hybrid innovation model is the offspring of two fundamentally different, coexisting agency models, enabling the entrepreneur to combine and integrate various elements from each archetypal model. Some of the distinct motivational drivers of OSS have been identified in the economic, psychological, social, and intellectual categories. While the articulation of these drivers would vary from innovator to innovator, what is interesting about OSS innovations is the way the underlying technology is structured—the principle of modularization. Innovators freely choose the assignments they want to work on, typically based on personal preferences such as for example needs, skills, and intellectual challenge. The findings suggest open source innovation in cases where the cost of licensing intellectual property is high or such proprietary means are ineffective or where the speed of technological development is critical. OSI is stated as an attractive alternative for micro-firms and SMEs, which have no or very limited funds for internal R&D. It is also a cost-effective way of marketing innovations, the author adds.


In the advent of knowledge society, businesses are faced with major transitions from focusing solely on developing new products and services to strategically innovating to improve their processes and performance. The greatest challenge that the innovative companies face is how to achieve a speedy and reliable innovation. Thus, on the one hand, while the issue is speed in introducing innovative products and services ahead of the competition, on the other, is the expansion of the market for these products and services. To attain success, what these innovative companies require is to balance the various parameters in the strategic communities (SCs) networked outside the organization, including customers, and to exhibit practical abilities. This paper presents one view of the capabilities in the knowledge-based society that form dynamic innovative processes in SCs and network these SCs. The NSPD (new service and product development) process that occurred over the past two years at NTT DocoMo, a traditional Japanese mobile telecommunication company is discussed. The company developed a product capable of multipoint mobile videoconferencing using technology arising from the integration of the Internet, telecommunication technology, computer technology, and third-generation mobile phone technology. In this study, the analysis of knowledge creation focuses on the synthesizing capability that the leadership-based strategic community uses to integrate various kinds of knowledge to generate NPSD. As community leaders, managers who play important roles in producing leadership for the company use dialectical thinking to synthesize knowledge of good quality that was unevenly distributed inside and outside the company, the author concludes.


Disruptive innovations are a powerful means for broadening and developing new markets and providing new functionality which, in turn, disrupt existing market linkages. However, despite the importance of disruptive innovations, there has been a dearth of academic research on this characteristic because of the lack of an appropriate measure. This paper develops a scale to measure the disruptive nature of innovations, establish the construct’s reliability, discriminant and convergent validity, and predictive validity, and discuss the significance of the results for other researchers. Data were collected from senior executives at 199 strategic business units (SBUs) in 38 Fortune 500 corporations for performing a series of analyses. The coefficient alphas and the average inter- and intra-construct correlations are determined. Exploratory factor analysis is performed to understand the factor structure and the corresponding measurement quality. Confirmatory factor analysis is conducted to test the proposed measurement model. Multiple confirmatory factor analyses are conducted for establishing the discriminant validity of the constructs. Finally, to assess nomological validity, the study examines the relationship of the different innovation types with (a) SBU’s future market focus, (b) the per unit gross margin of innovations relative to extant products, and (c) the number of disruptive innovations. The analyses find wide industry-level differences in innovation characteristics. While heavy manufacturing and consumer non-durables stand out with respect to a lack of radicalness, disruptiveness, and competency-destroying innovations, disruptive and radical innovations are significantly more in technology and telecommunications industries relative to consumer non-durables.

Intrapreneurship


Intrapreneurship—the practice of creating new business products and opportunities in an organization through proactive
empowerment and risk taking—is considered a key component to organizational success, especially in organizations that operate in rapidly changing industries. This study explores the experiences of managers from more than 20 US manufacturing and service organizations with intrapreneurship. Based on their experiences, the managers were asked about the specific actions of their organizations to stifle or prevent intrapreneurship and the suggestions that had to offer for stimulating or encouraging the same. Their observations helped in identifying the barriers to organizational intrapreneurship. It is argued that the failure of organizations to take members’ inputs on organizational improvement; sanction, promote, and encourage risk taking, empowerment, and improvement actions; give clear organizational direction, priorities, and objectives; and lack of top management support in risk taking and improvement initiatives, could stifle intrapreneurship. The organizations characterized by unhealthy politics, infighting, poor communication also suffer. The biggest barriers to intrapreneurship are thus not resources, but institutional and cultural constraints, the authors affirm and suggest ten gateways to intrapreneurship. These include among others the development of a culture of workforce empowerment and action; rewarding ideas, progress, and results; free-flowing customer information and internal communications; management support and engagement at all levels; ongoing encouragement and promotion of risk-taking and new ideas; cross-training; and developing processes for idea generation. These gateways can be developed only when the top management makes a decision to pursue them and gain the commitment of all managers for supplying functional support to intrapreneurial ventures.

Intrapreneurship is considered beneficial for the revitalization and performance of firms—both large corporations and small and medium-sized enterprises. Previous research conceptualized intrapreneurship in terms of four dimensions that were somewhat distinct in terms of their activities and orientations: (1) new business venturing, (2) innovativeness, (3) self-renewal, and (4) proactiveness. While the focus of new business venturing is on pursuing and entering new businesses within the existing organization, innovativeness emphasizes creation of new products, services, and technologies. On the other hand, the self-renewal dimension stressed upon strategy reformulation, reorganization, and organizational change, whereas proactiveness reflects top management orientation in pursuing enhanced competitiveness and includes initiative and risk taking. Two main measures of intrapreneurship—ENTRESCALE and the corporate entrepreneurship scale—were developed independently but they lacked validity for cross-national comparisons. This study integrates these two scales to develop a refined intrapreneurship construct of four dimensions and for generalization, uses two samples from two distinct economies: Slovenia and the US. Overall, the construct showed acceptable convergent, discriminant, and nomological validity, as well as external validity in terms of comparability across the two samples. In addition, intrapreneurship emerges as an important predictor of firm growth. In transition economies moving towards the more developed economies’ standards of doing business, intrapreneurship can be particularly critical for profitability and survival, the authors add.

Realizing the lack of effort towards synthesizing innovation research into useful managerial insights, the authors review relevant research on innovation and develop a typology in order to put innovation into perspective. The individual and organizational issues affecting innovation are first highlighted, their implication for intrapreneurship management discussed, and finally ideas offered for developing an intrapreneurial organization. The individual qualities for innovation include belief in innovation; creative but pragmatic imagination; psychological security and autonomous nature; achievement orientation; interpersonal skills; energy, determination, and persistence; and sense of timing. Thus a combination of vision, self-motivation, and killer instinct provide an interesting image of a secure, personable, energetic, imaginative, and pragmatic individual who has a proactive but not compulsive orientation. A more open approach to leadership and motivation is required to recruit, develop, and retain innovative individuals. Among the organizational factors affecting innovation, good user-designer working relationships and interaction of the firm with its environment would open the firm to new ideas and concepts; ambiguity in goals and processes; high standards of performance and positive values for innovation help to create a performance gap. Further, teams of professionals and diversity of experience help in developing organizational competence while loose coupling or organizational adaptability and superordinate goals enable the firms to focus efforts on external challenges. The authors, however, add that intrapreneurship is not a quick fix and that it needs top management commitment for a firm to evolve into a genuinely intrapreneurial organization.

Recent years have seen an increasing trend of private entrepreneurial activity amongst the employees of large firms resulting in start-ups outside the parent firm. In order to understand the dynamics of start-up formation and the economic trade-offs involved in the “intrapreneurial process,” this paper presents a model of employee-firm interaction in which private intrapreneurial activity competes with the basic activity of the firm. It examines the factors that influence an employee’s decision to divert human capital and resources to private innovative activity within the firm and discusses the optimal approach to this activity. It is argued that a firm provides an employee with access to its critical resource in order to foster the right kind of firm-specific investments from the employee and in the process allows him to develop human capital that can be used even outside the firm. Although the parent firm lacks ownership over any new asset created through intrapreneurial activity, it was assumed to possess an advantage over outside financiers in the auction to develop the asset. Intrapreneurship is also a potential source of rent on account of complementarities between the basic asset and the downstream asset. The firm balances these two considerations in arriving at the optimal employment contract. The analysis shows that while the effect of the innovation environment on employee innovation is always positive, the effect
of innovation rent is ambiguous. In general, provided that the innovation environment is sufficiently favourable, industries where the degree of complementarity between new innovations and the firm’s main activities is greater will have a greater level of intrapreneurial activity.


Adapted from a speech by the author, this paper tells the story of 3M—about how it succeeded in developing the ‘Post-it Notes’ through its intrapreneurial efforts. Intrapreneurs are a different breed—inventing new products inside a corporation. To make something happen is often more important to them than the conventional motivations of money and power. They may hence even challenge authority and sometimes be disruptive. With 40,000 products, 3M boasts of the world’s most successful new products company. New-to-the-world things require perspectives, associations, and new information that is not always available to the executive. Thus, top-down decisions, that are suitable for established market and existing technology, do not always help in breakthroughs. Innovation and intrapreneuring must be allowed at every level of the corporation. The development of ‘post-it notes’ illustrate how 3M encourages intrapreneurial activity through its dual ladder policy, communications network, executive champions, and its internal system of recognition and rewards, besides being liberal about failures. For developing a creative climate, it is considered necessary that the companies provide intrapreneurship the needed time and resources and the management conveys trust, expectation of excellence, practical rewards of sponsorship function, a long-term focus, an openness to criticism, and a willingness to change. It is also important that the management allows the people to understand the system—not just what they do but how their work interacts with others inside and outside the company. Those involved with intrapreneuring usually identify with the company, enrich the climate by sharing goals, add excitement, and improve the quality of life for both himself and others, the author concludes.


Hospitals and health care organizations are encouraged to adopt, structure, and manage intrapreneurship as a means of competing among health care providers and institutions, and enhancing growth. However, a model of intrapreneurship that is successful for a company may not be good fit for a hospital and may need some experimentation, planning, coordination, monitoring suitable to the context. This paper therefore identifies those models of structured and managed intrapreneurship found in business and industry which can be adopted, perhaps in modified form, by hospitals and other health services organizations. The objective is to use a model that has had some demonstrable success in helping a company compete and grow. Chaffhauser’s nine-step model, Detroit Edison model, and 3M model are discussed as illustrations. The steps in Chaffhauser’s model included among others identification of company’s strengths and weaknesses, a broad venture topic, and a venture team; launching of the team; and developing a business plan. The Detroit Edison model involves formation of an organizational structure which encourages and screens venture product/service proposals that are tracked to the launch stage. This model can be used in hospitals or a holding company that owns one or more hospitals. 3M model encouraged intrapreneurship by forming a separate division that is responsible for evolving, nurturing, and maintaining diverse business activities at various stages of development. All these intrapreneural approaches could be useful for the health care industry. However, what is important is to have concerted effort and concern not to commercialize the process and product/service, the author concludes.


While intrapreneurship is suggested as an essential vehicle for success of established organizations, the research so far has been in the context of large corporations in developed economies. This study looks at the role of intrapreneurship in a transition economy by comparing patterns of relationships and levels of constructs in the intrapreneurship model between Slovenia and the United States. Based on the literature, two main sets of predictors of intrapreneurship have been identified: the first pertaining to external environment of the firm and the second involving characteristics of the organization. Environmental munificence is seen as a multi-dimensional concept including dynamism, technological opportunities, industry growth, and demand for new products while hostile environmental conditions that affect intrapreneurship are unfavourability of change and competitive rivalry. The second set of predictors of intrapreneurship includes the key organizational characteristics such as communication openness, control mechanisms, environmental scanning intensity, organizational and management support, and organizational values. The results of path analysis suggest that patterns do not differ across the two countries and the levels of intrapreneurship are slightly lower and performance levels are much lower in Slovenia compared to the US. It is argued that in order to ensure change and growth in the transition economies, it is important that the firms adopt an intrapreneurial format and the governments render the required support. In fact, the potential benefits in terms of performance improvements may be even greater in these countries than the established market economies, the authors add.


Intrapreneurship research has predominantly been single organization-centered. The basic premise of this study is that in addition to organizational factors, firm-level entrepreneurship and consequent performance level may also be fostered by the firm’s engagement in inter-organizational relationships. The study extends previous theory of organizational processes influencing intrapreneurial activities and orientation, specifically highlighting possible relationships between organizational processes and intrapreneurship among firms—in inter-organizational relationships such as alliances and networks. It integrates two sets of organizational processes that can foster or inhibit entrepreneurship within firms. With the purpose of
differentiating the two sets of predictors of intrapreneurship, it is proposed that intrapreneurship can be viewed as consisting of two complementary elements: intra-firm and inter-firm intrapreneurship. The organizational characteristics influencing intrapreneurship are stated to include intra-firm and inter-firm communication, formal controls and trust, organizational support and values, environmental scanning, and network characteristics. Some of these such as communication, organizational support, and organizational values have a similar influence at intra-firm and inter-firm levels. In contrast, while formal controls in moderation are beneficial for development of intrapreneurship, it would need to be replaced by trust in order to be beneficial to inter-firm intrapreneurship as well. The practitioner intrapreneurs are, therefore, suggested to be aware of the complexity of intrapreneurship-related organizational processes, constantly evaluate multiple elements, and modify their cooperative behaviours accordingly.


The dynamic competitive conditions of both the corporate environment and the global economy add to the potential value of intrapreneurial contributions as the new economy influences the transformation of business models. The initial study investigated the corporate performance of Fortune 500 companies in the US by analyzing the impact of intrapreneurial (product/process development/improvement) programmes on overall corporate performance. This longitudinal study investigated the corporate performance of ten of the initial Fortune 500 corporations to determine whether the incorporation of intrapreneurial programmes impact the financial performance indicators of corporations. Overall performance is measured according to impact on total sales, profit, and return to investors. Independent variables included the presence of intrapreneurial programmes, perception of success with regard to organizational structure, primary functional areas incorporating intrapreneurial ideas, and number of product/process developments. Ranking means for development factors indicated that financial analysis, product design, and competitive market analysis were most important while technology, development costs, and personnel were the least important contrary to the earlier study which revealed technological factors indicated that financial analysis, product design, and competitive market analysis were most important contrary to the earlier study which revealed technological factors.


Entrepreneurial endeavour in terms of new venture creation can be considered risky since the failure rate of new firms is substantial. This study examines risk taking at the individual level in the context of intrapreneurship. A congruent and complementary set of theories is used for development of a conceptual framework and a model of risk taking in intrapreneurship. At the individual level of analysis, four approaches are used to develop an explanation for the paradoxical translation of individual-level risk aversion into individual- and organizational-level risk taking behaviour. Individuals in these approaches are seen as relatively rational decision makers in bounds of available information that shapes their cognitions and in turn their behaviours. Theory of planned behaviour provides a psychological framework for understanding processes of cognition that result in behaviour in specific contexts. Prospect theory helps in understanding the context of risk, particularly risk evaluation and risk-related decisions. Agency theory, especially combined with the prospect theory, is potentially able to highlight issues in managing risk in an organization, particularly risk-related goal alignment through contractual relationships. Organizational culture perspective considers less tangible elements, such as values, attitudes, and behaviour in an organization. On the basis of the proposed model, managers can design their own firm-specific, customized models which can be helpful in shaping the risk taking behaviour and intrapreneurship.


Corporate entrepreneurship and intrapreneurship have been suggested as methods of stimulating innovation and utilizing the creative energy of employees. However, research has generally used the firm as the unit of analysis and has failed to explain variations in innovation behaviour among individuals in organizations. Innovation behaviour is conceived as an initiative from employees concerning the introduction of new processes, new products, new markets or combinations of such into the organization. The initiative could be a response to market demand, management request or an autonomous intrapreneurial initiative. This paper tests two competing models of innovation behaviour in organizations and compared to a base model containing relevant control variables. The models are tested using a sample of 634 business graduates employed in a diverse set of occupations and organizations. The first model is derived from the corporate entrepreneurship literature, suggesting that the extent to which the organization has a deliberate entrepreneurship strategy determine employees’ involvement in innovation and change. The competing model is derived from the intrapreneurial literature where the emphasis is on the employee’s individual personality. The results indicate that both the strategy and personality models outperform the base model. Moreover, the model that combines the personality of the individual and the strategy of the organization performs even better than each of the two models separately. This approach makes it possible to use the individual rather than the organization as the unit of analysis.


Exopreneurship has emerged as an option for established organizations to acquire innovation from external entrepreneurial resources as a result of the slow process of intrapreneurship in commercializing new products. This paper explains and clarifies the process of exopreneurship and discusses the relationship between different levels of intrapreneurship, exopreneurship, and performance linkages. It thus provides a better understanding of a firm’s entrepreneurial activities towards enhancing global competitiveness.
of Malaysian manufacturing firms. Exopreneurship is a synergistic process involving integration of the firm’s internal activities and external activities outside the firm. It leads to an outcome of a new venture based on innovation. The distinctive feature and value of the process of exopreneurship is that the inside firm has the initiative and motivation to look out for activity which makes it entrepreneurial. This is because the objective of the firm is not driven solely for diversification or just another profit-making business, but it constitutes entrepreneurial indicators such as individual, an act, innovation and opportunity, the birth of an organization and risk. The core research issue is whether exopreneurship can be another alternative process of corporate entrepreneurship other than intrapreneurship to generate new business within organizations. The results suggest that both intrapreneurship and exopreneurship are entrepreneurial processes that yield high importance and satisfaction of performance for firms to remain competitive. Specifically, exopreneurial activities such as franchising, subcontracting, strategic alliance, and external corporate venture capital increased competitive advantages of organizations, thus establishing exopreneurship as another desirable strategy like intrapreneurship as a valid focus for research and for implementation.

Financial Innovations


Financial innovations are considered critical not only for firms in the financial services industry but also for all other industries as they enable them to raise capital in larger amounts and at a lower cost. Despite the acknowledged economic importance of financial innovation, and the fact that the dynamics of financial innovation are quite different from those in manufacturing, however, there is a paucity of research in this area. This study fills this gap and examines financial innovation as a phenomenon in its own right. It develops a measure of financial innovation, addressing the possible concerns about its use through a variety of approaches. The analyses focus on the question of which institutions are associated with financial innovations. The evidence suggests that smaller firms account for a disproportionate share of innovations. Also, firms that are less profitable in their respective sectors are disproportionately more innovative. Older, less leveraged firms located in regions with more financial innovation appear to be more innovative. In the final analyses, exploring differences across classes of innovations and financial firms, the author finds no evidence for a disproportionate role of smaller firms in innovation among depository institutions. Similarly, low profitability seems to be particularly associated with process innovators. The results also suggest that the financial innovators experience a significant increase in profitability in the years after the innovations. Finally, the study finds substantial inter-industry differences and few localized knowledge spillovers in patenting.


Financial innovations and their stabilizing/destabilizing impacts are issues of an ongoing debate. This paper examines the most recent financial innovation, single stock futures (SSF), to provide an empirical test of whether SSF enable greater market efficiency. In an SSF contract, a buyer commits to buy or a seller to sell a particular stock at a pre-specified price on a pre-specified future date. Although SSFs could be constructed by using the underlying assets or other currently available derivatives, their existence is justified because of having two main advantages over the trading of stocks or a combination of stocks and current derivatives. It reduces the short-selling constraints facing traders who want to short the underlying stock. Moreover, it affords investors greater leverage because future contracts require less capital; the margin requirement is low in SSF. The inability of traders to construct short positions at low cost has been long seen as a major cause of market inefficiency. The availability of SSF is hypothesized to foster greater efficiency in the stock market. Alternatively, lower transaction costs and greater leverage are hypothesized to facilitate destabilizing speculation. Consistent with the hypothesis, the results suggest that SSF with lower trading costs and higher leverage, provide better relief to arbitrageurs than speculators. Market efficiency is found to increase for stocks listed on SSF exchanges since the end of 2002. A specific news event approach is used to show that there are fewer unexplained large stock returns for SSF firms in the post-listing period and in a matched non-SSF sample. The decline is positively related to the extent of trading activity in the single stock futures market.


Recent growth in financial innovation has transformed the banking industry of Hong Kong. Off-balance-sheet (OBS) innovations arise from forward, swap, and options transactions undertaken in the foreign exchange, interest rate, and equity markets. This paper examines the role of information complementarity and market competition in governing the diffusion of OBS financial innovation in the context of Hong Kong banking industry. It is proposed that the diffusion process of financial innovations with information complementarity is essentially a dynamic process of learning and information sharing in which the adoption of some innovations will stimulate the adoption of others. The sample for the study included 31 banks in Hong Kong offering three major types of OBS financial products, namely, contingent liabilities, exchange rate contracts, and interest rate contracts. Information complementarity in adopting different types of OBS financial innovations is stated to occur if the adoption of an innovation lowers the risk and uncertainty of adopting others. Market competition is found to encourage innovative activities as competitive firms are able to capture the full profit potential from successful innovations. It also discourages innovative activities if monopoly profits are needed to finance expensive R&D projects. However, from the statistical analysis, information complementarity emerges as the main driving force behind the diffusion of OBS financial innovations.


Banks have recently gained access to a relatively new and rich class of securities—credit derivatives—which are actively available derivatives, their existence is justified because of having two main advantages over the trading of stocks or a combination of stocks and current derivatives. It reduces the short-selling constraints facing traders who want to short the
traded. Although credit derivatives are important for hedging and securitizing credit risk and thereby likely to enhance the sharing of such risk, there have been concerns that they may destabilize the banking sector. This paper addresses the question whether financial innovation of credit derivatives and the resulting derivatives trading make banks riskier. It provides a theoretical framework to identify potential destabilizing factors for the banking sector and to discuss regulatory responses to mitigate destabilization of this sector. The key insight from the analysis is that a financial innovation in the credit derivatives market may increase bank risk, particularly those that operate in highly elastic credit market segments. Credit derivative trading is, therefore, a potential threat to bank stability even if banks use these instruments solely to hedge or securitize their credit exposures. Analysing the regulatory response to this, the author finds the process of financial innovation of crucial importance. It is argued that the success of a new credit derivative instrument is determined by its commercial success, i.e., how aggressively it will be traded. Since the credit risk linked to the elastic segments of the credit markets leads to more aggressive credit derivatives trading, the direction of the financial innovation process is potentially also a threat to bank stability. The innovation that yields the most commercial success are precisely those that yield the minimum impact in terms of welfare, the author adds.


Market imperfections due to financial innovation make it costly for investors to hedge their consumption risks. As a result, there is demand for new securities and trading strategies that can reduce the imperfection costs. This paper investigates a “true” financial innovation—installment receipt (IR)—which evidences the purchase of an underlying security in a public offering on an installment basis. IR represents an opportunity for the buyers to buy the underlying security on margin where the issuer is the leverage provider. After the closing of the offering, IRs are listed on stock exchanges and thus can be easily traded by their holders. By selling their IRs in the market, the holders pass to the new buyers the obligation to make future instalment payments. Since IRs are leveraged instruments, most brokerage firms do not allow investors to further leverage the investments by using margin. However, buyers are not required to put up any collateral to guarantee that they will honour their obligation to make future instalment payments. This paper develops a model to explain the incentives for issuers and investors to trade IRs. It is argued that IRs benefit investors who want to leverage their investment but cannot do so due to borrowing constraints. This in turn benefits the issuers of IRs as the set of potential investors is enlarged and demand for the offerings increased. For providing empirical support for this argument, time series of market prices of IRs and their underlying securities are examined. IRs are shown to be generally traded at a premium relative to their underlying, the premium being greatest in magnitude when IRs are farthest from their final instalment payment dates.


Since both innovations and regulations are changing the financial landscape all over the world, it becomes important to determine the extent to which those changes affect bank cost, revenue, and profit scope economies and output pair complementarities. There is a lack of studies measuring output complementarities in countries where banks have been traditionally permitted to offer a broad range of financial products. This study tests how output innovation and product mix definition could, at least partially, explain the existence of cost, revenue or profit scope economies in the banking sector, as the standard theoretical models of the banking firm show. To test these hypotheses, the study estimates cost, profit and revenue scope economies, and specific output pair complementarities in Spanish banking using a composite cost function and including various on and off-balance sheet output measures. Specifically, loan commitments and mutual fund distribution activities are considered along with traditional lending, deposit-taking, and securities activities. The main results suggest that cost, profit and revenue scope economies do exist in the Spanish banking industry although some of these advantages only come to light when including off-balance sheet activities in the output mix. Both cost and profit scope economies are found to co-exist in a less than competitive environment. However, the results of the competitive analysis reveal that diversification increases market power although these changes have not yet contributed to alter the underlying bank market structure in Spain significantly. Revenue complementarities between deposits and loans and other earning assets increased significantly when mutual funds were added.


Although not a new innovation, the concept of economic value added (EVA) has been rediscovered as a cornerstone of focused finance, as a means of achieving improved company performance. This paper discusses all about EVA—the basic premise on which the concept is based, its computation, uses, and limitations. The standard financial model uses cash flow analysis for capital budgeting reviews, EBITDA, and return measures for performance reporting and investor relations, making the system a complex jumble of metrics, methods, and messages. EVA is both a measure of true economic performance of a company and a strategy for creating shareholder wealth. It is net operating profit minus an appropriate charge for the opportunity cost of all capital invested in an enterprise. It thus has the advantage of being conceptually simple and helpful in enabling managers properly assess the tradeoffs between managing assets and income. EVA, in fact is the only measure that establishes a searing dividing line between good and bad performance for it is the true measure of profit. The paper shows the trend analysis of the application of EVA in three companies, namely, Hindustan Lever, Infosys, and Hero Honda. It also depicts the utility of EVA for small companies stating that the scarce capital resources of a small company can be can be more efficiently allocated using EVA than through intuition or traditional methods. EVA reflects and
show obvious signs of improvement right from the beginning

tailed t-tests. The mean values for improvement in parameters
alone and the combined strategy is done with the help of two-
improvement in different time periods contributed by TQM
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medium-, and long-term effects on performance. The six
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companies from automobile, engineering, and processing, was
business performance. The study, covering 111 manufacturing
implementation time and whether the support of TPM pro-
formance of companies increases with experience in terms of
management leadership. On the whole, adoption of ISO 9000
standards significantly helped the sample companies in im-
provement in the quality performance. However, for contin-
ous quality improvement, what is required is the integration
of ISO 9000 with TQM by developing precise criteria for
measuring quality performance.

Liberalization, followed by entry of multinationals changed
the complexion of business competition in India with the
companies facing serious challenges of improving quality. ISO
9000 addresses the issue of setting and implementing a
management system to consistently produce quality products
and was hence considered the basis for quality management.
This paper evaluates quality management practices in 16 ISO
9000 certified companies in India. An earlier developed
research instrument with eight critical factors of quality
management was used for this study. The factors included
product/service design, process management, supplier qual-
ity management, training, employee involvement, quality data
reporting, role of quality department, and role of management
leadership. The reliability of the research instrument was
assessed with the help of internal consistency method. The
results showed that while all the respondent companies
practised the eight critical factors of quality management, the
implementation rate was not of the same degree for all. There
was a heavy reliance on the role of the quality department for
managing product/service quality, followed by the role of
management leadership. On the whole, adoption of ISO 9000
standards significantly helped the sample companies in im-
plementing the critical factors, thus contributing to the
improvement in the quality performance. However, for contin-
ous quality improvement, what is required is the integration
of ISO 9000 with TQM by developing precise criteria for
measuring quality performance.

Total quality management (TQM) and total productive main-
tenance (TPM) are the two quality management practices that
have gained wide acceptance in the Indian industry as prime
movers for increasing competitiveness. This paper examines
whether the effectiveness of TQM to improve business per-
formance of companies increases with experience in terms of
implementation time and whether the support of TPM pro-
vides a synergetic effect on TQM’s contribution to improving
business performance. The study, covering 111 manufacturing
companies from automobile, engineering, and processing, was
carried out for three time periods to examine the short-, medium-, and long-term effects on performance. The six
parameters of performance used in the study included pro-
ductivity, quality, cost, delivery, safety and hygiene, and
employee morale. The comparative analysis of performance
improvement in different time periods contributed by TQM
alone and the combined strategy is done with the help of two-
tailed t-tests. The mean values for improvement in parameters
show obvious signs of improvement right from the beginning
of implementation, though it has been very marginal in
transition phase. The real benefits of TQM seem to be realized
by Indian companies in the stability and maturity phases. The
synergetic effect of TPM support on TQM’s performance is also
established in the Indian context where equipment and physi-
cal infrastructure are relatively inferior and maintenance
function is not given much importance. The combined ap-
proach helps in realizing the benefits of both TQM and TPM,
thus bringing out significantly higher improvement than
TQM.

While TQM is seen as an effective resource for pursuing other
types of competitive performance than quality, including
innovation, yet, the origins of TQM being rooted in the concept
of quality control, could be contrary to the spirit of innovation.
This paper empirically examines the integration of TQM
practices with technology management and R&D management
in determining quality and innovation performance. The
framework is a simple linear model of the relationship between
the independent and dependent variables. Organizational
practices, as independent variables, consist of two blocks. TQM
practices as the first block comprise leadership, strategy and
planning, customer focus, information and analysis, people
management, and process management. The second block—
total innovation management (TIM)—comprises technology
management and R&D. The model therefore examines the
integration of TQM and TIM as organizational resources in
determining quality and innovation performance. The empiri-
cal data drawn from 194 Australian organizations was ana-
lysed using the structural equation modeling technique. TQM
shows a strong predictive power against quality performance
but no significant relationship against innovation perform-
ance. On the other hand, technology and R&D management
shows a significant relationship with quality performance but
at a lower level than that of TQM, and shows much stronger
relationship with innovation performance. The findings imply
that technology / R&D management is an appropriate resource
to be used in harmony with TQM to enhance organizational
performance, particularly innovation.

High tech firms operate in the global, extremely complex, and
change-prone environment and thus need highly capable
managers, effective teamwork, and a unique culture that
would foster organizational learning and innovation. It is,
however, argued that innovation and agility contribute to
short-term competitiveness and that good management prac-
tices would be required to sustain their advantage in the long
run. This study empirically investigates the relationship be-
tween the extent of quality management implementation and
performance in high tech manufacturing firms. Using repli-
cation research with two datasets collected at different times,
it explores if the bundle of eight quality management (QM)
practices differentiate high and low performing high technol-
ogy firms. These QM practices include management leader-

Quality Management

Management Practices in Indian ISO 9000 Certified Com-

32. Tripathi, Deepak (2005), “Influence of Experience and
Collaboration on Effectiveness of Quality Management
Practices: The Case of Indian Manufacturing,” International

gration of TQM and Technology/R&D Management in
Determining Quality and Innovation Performance,” Omega,
34(3), 296-312.

Quality Management Practices and High Tech Firm Perform-
ance,” Journal of High Technology Management Research, 16(2),
255-272.
ship, training, employee relations, quality data and reporting, supplier quality management, product/service design, process management, and customer relations. The results indicate that high performing firms have implemented QM more extensively than low performing high tech firms. To make QM a competitive strategy, however, it is necessary that the high tech firms adopt an integrative approach to QM implementation. Full benefits cannot be realized by implementing only selected QM practices. The results also suggest that high performing high tech firms do not trade-off quality management for innovation.


The foundation of industrialized economies has of late shifted from natural resources to intellectual assets. Thus with knowledge becoming the core asset, and codifying, storing, and sharing of knowledge becoming possible because of the rise of networked computers, management of knowledge has become a conscious practice in most businesses. This paper examines the knowledge management practices of companies in several industries, starting with the management consulting firms. These firms employ two very different knowledge management strategies: codification strategy where knowledge is carefully codified and stored in databases for easy access and use; and personalization strategy in which knowledge is closely tied to the person who develops it and is shared mainly through person-to-person contacts. A company’s choice of strategy depends upon the way the company serves its clients, the economics of its business, and the people it hires. It is argued that a company’s knowledge management strategy should reflect its competitive strategy: how it creates value for customers, how that value supports an economic model, and how the company’s people deliver on the value and the economics. For making an explicit connection between the company’s competitive strategy and the use of knowledge to support it, the managers need to know whether the products offered are standardized or customized, mature or innovative, and whether the company’s employees rely on explicit or tacit knowledge to solve problems. To get the maximum benefits, the company would need a strong leadership that would help in coordinating the HR, IT, and the competitive strategy, the authors conclude.


The companies interested in improving their competitive position in the world marketplace, need to frequently bring in knowledge management (KM) tools, product innovations, and value-added services to the market in a timely fashion. By doing this, they can gain customers’ confidence and an easy market share while also getting on the learning curve ahead of their competitors. This paper highlights the integrity characteristics of a successful learning company, pinpoints the mistakes most manufacturers make while implementing TQM, and finally proposes the concept of total value management (TVM) as a new KM concept for balancing the interest of the entire organization. The KM concept employs some of the basic principles of TQM and the learning organization, but goes well beyond its quality management or learning focus. Value management requires a commitment to incorporate value elements, through KM concepts, at all levels of interactions with product, process, enterprise, and the teams. TVM methodology offers a systematic way of developing a product from its inception to completion. Based on the principles of concurrent engineering, TVM involves a four-step knowledge management process: reduce the variable, and control the product, process, and operation. At each step, TVM simultaneously considers many of the parallel states of product development. As concurrent teams become more experienced in utilizing the KM process, teams will naturally take less time to complete the steps. TVM thus enables the teams to document a shortening of the overall PD³ (product design, development, and delivery) cycle.


Many enterprises today offer services through a combination of delivery methods involving the Internet, the sales staff on the physical site and on the calling centres thus facing great complexity in business structure and in the dynamics among different business functions. For such organizations, designated as scalable enterprise systems (SES), the challenge lies in maintaining a complex but coordinated and efficient structure in dynamic and highly competitive business environments. This paper develops awareness of quality practices for SES by clarifying the fundamental concept and characteristics of SES. The study is based on the foundations of the quality management, BPR, and systems theory. Selected quality elements and their implications to SES regarding continuous improvement (CI) and flexibility to adapt are analysed in terms of industry scenarios. The key elements from QM and BRP might include CI and realignment, process-oriented focus, IT, teamwork and participation, reduced control and checks, and employee empowerment. Some of the most critical barriers to incorporate BPR and QM initiatives in SES include the lack of management commitment for these initiatives, the neglected employees’ training and orientation, and poor communication among employees and management. The author finally presents the new opportunities in scalable enterprises that could be taken up for future research in the area.

Business Processes and Entrepreneurial Orientation


Infosys has emerged from a normal ‘body-shopping’ outfit to an end-to-end solution provider through a process orientation and an enabling culture. It is today the benchmark in the Indian Information and Technology industry and a globally recognized player in the knowledge-intensive industry. This case study examines the quality systems and processes that the company has installed to cope with continuous globalization. Infosys considers its employees as strategic assets. The key factors responsible for its organizational excellence include organizational attributes, organizational processes, and or-
The three organizational attributes—culture, commitment, and entrepreneurialism—act as facilitators for creation, adoption, and diffusion of innovations. Organizational processes ensure that quality levels and implementation of projects are trouble free and system-driven. The three models that give identity to Infosys are: integration of process and quality architecture; global service delivery model; and influx business model. Finally, organizational excellence requires that the organization be aligned to produce results, and that requires a design that addresses business process performance, technology, performance measures, and rewards. Corporate governance, knowledge management, and collective ownership are major initiatives in this direction. Given the core strengths and values embedded in the Infosys culture and its track record of innovation, the company is poised to tackle the challenges thrown in by the growing business complexities and increasing competition.

As installing an ERP systems is an expensive and risky venture, the evaluation of its benefits assumes important. This paper first examines if an ERP system impacts the strategic goals of a firm. It then illustrates the applicability of balanced scorecard (BSC) to ERP systems and derives a new valuation framework for discovering and defining ERP success measures that impact the business objectives and strategies of the organization. The ERP valuation framework—the ERP scorecard—integrates the four Kaplan and Norton’s balanced scorecard dimensions with Zuboff’s notions. The authors suggest that the success of ERP implementations and operations depends on the firm’s intention to use the ERP system to automate, informatize or transformate the organization. Organizations begin with the goal of automating business processes in a way that leads to seamless accumulation of consistent data across the organization, but soon discover that ERP systems can be used to inform affected parties across the value chain such that decision making at all levels is vastly improved. (informatize). Using a successful SAP implementation by a major international aircraft engine manufacturing and service organization as a case study, it is illustrated that an ERP system does impact the business objectives of the firm. The new 12 cells framework partitions the ERP implementation benefits into three levels. The automated level focuses on operational benefits, the informatize level focuses on tactical decision making outcomes impacted by an ERP implementation, and transformate level looks at strategic impacts of ERP implementation.

Reverse logistics is the movement of goods from a consumer toward a producer in a channel of distribution and focuses on managing flows of material, information, and relationships for value addition as well as for proper disposal of products. One of the important problems faced by the top management in the computer hardware industries is the evaluation of various alternatives for end-of-life (EOL) computers. This paper presents analytical network process (ANP) model which structures the problem related to the selection of an alternative for the reverse logistics option for EOL computers in a hierarchical form and links the determinants, dimensions, and enablers of reverse logistics with different alternatives. In the proposed model, the dimensions of reverse logistics for the EOL computers have been taken from the four perspectives derived from balanced scorecard approach: customer, internal business, innovation and learning, and finance. By linking the financial and non-financial, tangible and intangible, internal and external factors, it thus provides a holistic approach to the selected multi-criteria decision making problem for EOL computers. Despite the fact that the proposed ANP model is based on a sound algorithm for systemic decision making, care must be taken in its application as the user has to compare the reverse logistics operations on a number of pair-wise comparison matrices. Although this paper discusses the feasibility of application of the model for EOL computers, because of the generic nature of the dimensions identified, it can also be used for other products, the authors affirm.

In the context of organizations moving from functional to process-based IT infrastructure, ERP has emerged as one of the most widespread IT solutions. While successful implementation of ERP can result in a dramatic turnaround for the company, it is often stated to fail due to inadequate time or money for managing the cultural change issues. Using a methodology grounded in business process change theory, this research reports on a comparative case study of four US firms that implemented ERP system. Based on the lessons from them, it then proposes a framework which illustrates the critical factors/issues that need to be addressed at all the three phases of the implementation process: pre-implementation or setting-up phase, implementation, and post-implementation or evaluation phase. The case studies revealed that a cautious, evolutionary, bureaucratic implementation process backed with careful change management, network relationships, and cultural readiness can lead to successful implementations. On the other hand, a revolutionary project scope that is mandated autocratically by top management without organizational readiness and proper change management is likely to lead to a troubled ERP implementation. A clear vision and top management commitment are suggested as fundamental to successful ERP implementation. Also, the evaluation and proper monitoring of ERP system’s implementation can make an organization more adaptable to the change programmes and therefore, help them derive maximum benefits from investing in ERP, the authors add.

While initially ERP systems were implemented only in manufacturing firms, there has been an increasing trend towards adopting them in the service sector. ERP is a software package attempting to integrate all departments and functions of a company onto a single computer system that can serve all the different departments’ specific needs. In order to get an insight
into how services approach ERP implementation, this paper reviews ERP projects in six French service organizations including healthcare, insurance, software and telecom service companies. The reasons cited for ERP implementation in service companies include solving Y2K problem, reducing administrative workload, improving visibility, replacing dispersed legacy system, and real time data processing. None of the sample organizations used an ERP system for managing service production and delivery. One common problem faced by service organizations is the issue of “misfit”—the gaps between the functionality offered by the package and that required by the adopting organization. While in manufacturing companies, ERP system is considered as an integrated solution, in a service organization, enterprise-wide functional integration does not exist. However, there are other logistics modules, such as project management and after-sales services that are believed to be beneficial to the service sector. The main characteristics that are identified for services deal with complete or partial integration, product or customer orientation, importance of labour, and human factor. "34. Arnheiter, Edward D and Maleyeff, John (2005), “The Integration of Lean Management and Six Sigma,” The TQM Magazine, 17(1), 5-18.

Six Sigma and lean management have evolved into two most popular comprehensive management systems. While quality improvement was the main driving force behind Six Sigma, waste elimination guided the development of lean management which originated in Japan, a country of few natural resources. To eliminate the misconceptions about these systems, this paper describes the key concepts and techniques that underlie their implementation. The authors also throw some light on what these systems can gain from each other, finally offering suggestions for developing a lean, Six Sigma (LSS) organization. First adopted by Motorola, Six Sigma today is a combination of the Six Sigma statistical metric and TQM with additional innovations that enhance the programme’s effectiveness while expanding its focus. The main components include a focus on the customer, recognition that quality is the responsibility of all employees, and the emphasis on employee training. On the other hand, pioneered by Toyota, lean management was derived from the need to increase product flow velocity through the elimination of all non-value-added activities. However, lean was taken to mean layoffs, besides the misconception that it worked only for manufacturing, within certain environments, and only in Japan. It is argued that both the systems represent the state-of-art, each giving priority to certain facets of organizational performance. Therefore, in a highly competitive environment, implementation of one programme in isolation would result in diminishing returns. An LSS organization can capitalize on the strengths of both by incorporating their primary tenets. "35. Woodard, Tanisha D (2005), “Addressing Variation in Hospital Quality: Is Six Sigma the Answer?” Journal of Healthcare Management, 50(4), 226-236.

Six Sigma is an innovative and comprehensive management tool that has been in use for many years in manufacturing. It uses data analysis and other problem-solving techniques to evaluate the ability of a process to perform defect-free, defect being anything that results in customer dissatisfaction. This paper presents an analysis of the existing quality management tools, highlighting the potential benefits and barriers of implementing Six Sigma, particularly in the hospitals, and finally examining the possibility for an organization to incorporate Six Sigma into its existing quality management programme. It is argued that as a quality management model, continuous quality improvement/TQM model can provide many benefits to a hospital, including better output quality, productivity improvement, and an enhanced competitive position. It is, however, very time-consuming and attention-seeking making it unappealing for hospitals. Another model of quality improvement—reengineering—involves recreation of task interdependencies through a multi-step process. However, the greatest problem with reengineering has been its aggressive rhetoric and its failure to engage the staff on whom the organization relies. The strength of Six Sigma lies in its accountability and its ability to timely identify and solve errors and is thus an asset to hospital administrators. The fear of healthcare organizations to completely overhaul their improvement programmes often hinders the consideration of Six Sigma programmes. The author assures that it does not require a complete transformation and can instead be integrated into an organization’s current TQM programme. Its DMAIC methodology leads to a precise identification of the problem, defined methods to measure and analyse the problem, and concrete performance improvement as well as control of the process. "36. Chen, SC; Chen, KS and Hsia, TC (2005), “Promoting Customer Satisfactions by Applying Six Sigma: An Example from the Automobile Industry,” The Quality Management Journal, 12(4), 21-33.

The automobile industry in Taiwan has reached its product maturity stage. To survive in the highly competitive and changing business environment of today, it would need an effective model of quality control and performance improve-
Amidst an ongoing debate on whether strong intellectual property protection encourages or retards the rate of technological change and economic growth, policy makers have gone for an agreement on TRIPs (trade related intellectual property issues). This paper empirically analyses the influence that intellectual property protection might have on innovation and technological change. This relationship is investigated at the economy-wide level, using cross-country data on the strength of IPRs, technological change, and other relevant country-specific controls. It is argued that innovations are non-rival and non-excludable goods meaning that use of a particular innovation by a producer does not preclude other entrepreneurs from using it. Intellectual property protection serves to decrease the degree of non-excludability of innovations by assigning to the inventor the property rights over his innovation for a given period of time. One argument given in favour of weak protection of intellectual property, particularly for developing countries is the cheap acquisition of technology through imitation and the encouragement it provides to innovation. The study shows unambiguously that intellectual property protection (proxied by an index of patent rights) has a strong positive effect on technological change (proxied by R&D investment expenditures). The authors discuss the advantages of conforming with the agreement in the longer run. It is, however, added that only if the strengthening of IPRs occurs in reality and does not remain in the statute books would they provide the right incentives for innovation.


In the context of an enhanced importance of innovative entrepreneurship as a major source of competitiveness in the knowledge-based economies (KBE), research on the patterns of intellectual property (IP) generation and intellectual property rights (IPR) registration have assumed immense significance. However, despite the fast-paced, electronics-based transformation in regional production and trade since the 1990s, patented assets owned by regional entities have remained very small in volume. This paper examines IP creativity in the ASEAN region in terms of patents for invention (triple-test patents) and patents for the utility model (petty patents). The former are characterized by being new, inventive, and useful for practical purposes, and are the most important component of proprietary industrial knowledge. Petty patents, on the other hand, are “grain-sized innovations” which do not comply with the triple-test requirements or to current thinking and practice as regards original and creative works of authorship that still dominate IP assets and their registration and protection. Yet, it is believed that they can serve as a stepping stone for technological capacity deepening and diversification in most developing economies, including those in ASEAN. The paper discusses a variety of bottlenecks and constraints on IP creation in ASEAN that has emanated from the shallow and limited S&T and R&D base as well as from various systemic and institutional problems in the invention patent regimes in the region. It also looks at the market challenges and policy dilemma for further consideration in research.


The scope and economic effects of intellectual property rights (IPRs)—patents, copyrights, trademarks, and the like—have changed considerably over the past few decades. This paper explores the reasons behind the changing role of IPRs, and the implications for firm strategy and industrial policy. The author contends that four interrelated trends have mainly affected the role of IPRs over the past few decades: (1) the growing importance of intangible assets as sources of competitive advantage; (2) the globalization of business activities; (3) advances in digital technologies of replicability and transferability and (4) changes in the legal framework governing the strength and scope of IPRs. The paper focuses, in particular, on the impact of these trends on the importance and effectiveness of patents. It is argued that while patents have become more valuable to firms in fulfilling a variety of strategic goals, they are less effective in actually motivating R&D. To address this problem, it is suggested that the patent system is ‘re-tuned’ and reformed so as to achieve a better balance between its social benefits and costs, and/or supplemented by alternative incentive systems to encourage R&D in areas not sufficiently stimulated by the prospect of patent protection. Some of the reform measures include raising the criteria of patentability, implementing different fee structures, and allocating more resources to patent examiners so that they can take the necessary time to make better patent decisions. The alternative incentives include procurement contracts, publicly funded university research grants, subsidies to R&D firms, tax deductions for R&D investments, and R&D prize systems.


In the new economy where knowledge assets rather than physical assets are the primary sources of wealth generation and economic growth, there is a tightening of the intellectual property rights (IPRs). While this tightening is based on a vision of why this might provide the answer, there is currently a need to set out clear objectives for the IPR system, and for understanding the operation and social and economic effects of IPR policies. This article therefore reviews critically and classifies the rationales for IPRs, and the empirical results in relation to the specificities of firms, industries, and individual and public ownership. It has been illustrated that IPR systems are not neutral; they set the rules of the game in which individuals and organizations interact, and in which corporate leaders and stakeholders are shaped and technological trajectories selected or reinforced. The focus of the article is on patent system designed to protect knowledge embodied in mainly industrial, product, and process innovations. Based on the views of those who believe in the IPR system, a typology on the complexity of IPR rationales has been proposed. By mapping out the rationales for IPRs and illuminating the conflicts, contradictions, and tradeoffs in the IPR system, this typology is expected to help policy makers, analysts, and
academics not just to assume IPR system, but to use it to address critically why we have it, how it works, and what would be its social and economic effects. This finer empirical understanding would in turn help in designing policies fostering the knowledge-driven techno-economic paradigm in the twenty-first century.


A patent provides the innovator with a legal monopoly on an innovation. However, the strengths of property rights provided by a patent can vary with the characteristics of the innovation. This paper presents an empirical study of the determinants of firm patenting. Since industrial research and development encompasses a variety of activities, the author distinguishes between patents on process innovations and patents on product innovations. It is argued that the property rights provided by a patent may differ between process and product patents and thus the determinants of process innovations and product innovations may also differ. Firms are more likely to obtain a patent on a new product than on a new process because of the nature of the patent system. Market power is more likely to encourage process innovations and patenting in the technically less progressive industries than product patenting and patenting in technically progressive industries. In the proposed model, the industry four-firm concentration ratio is used to measure market power, and the effect of concentration on process patenting is expected to be greater than the effect of concentration on product patenting. The results of the study support the contention that concentration affects research activity directed towards process patenting and product patenting differently. Further, industrial concentration encourages patenting more when firms face limited technological opportunities. Diversification is found to encourage both process and product patenting, although the effect is stronger for product patenting.

Creativity is thinking up new things. Innovation is doing new things.

Theodore Levitt
INTRAPRENEURSHIP


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(Re)Invention/Innovation


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The innovate point is the pivotal moment when talented and motivated people seek the opportunity to act on their ideas and dreams.

W. Arthur Porter