
Attitudes towards Product and Service Innovation in India and Israel – An Exploratory Study

Iris Ginzburg*

Demaya innovation practices, Tel Aviv Israel
E-mail: iris@demaya.com

Yossi Lichtenstein and Michael Neugarten

The College of Management, Rishon Letzion, Israel
E-mail: yossil@colman.ac.il; mneugarten@gmail.com

* Corresponding authors

Rahul Agarwal and Prabha Parthasarathy

Erehwon Innovation Consulting, Bangalore, India
E-mail: info@erehwonconsulting.com

* Corresponding authors

Abstract: we study a remarkable combination of innovation type and innovation locality – the propensity of India for IT services and Israel's success in product innovation. We report on an on-going survey of Israeli and Indian corporations regarding their attitudes towards innovation-related to human capacity and market and business sophistication. Early results indicate how best to enhance firms scope of innovation, for example, Israeli companies need to cultivate a culture of service orientation, customer collaboration and wider knowledge-seeking as basis for service innovation. Indian companies should work on R&D departments with a stronger entrepreneurship culture and stronger self-reliance in knowledge creation.

Keywords: Service innovation, Product Innovation, Globalization

Introduction

Technology-related innovation is a global multifaceted phenomenon that encompasses new products, new services and new business processes, as well as innovative business models and new social practices based on new and emerging technologies. The nature of technology-related innovation reflects also the location and people involved in its inception – whether these are web-based social networks originating in elite American universities, or phone ladies based in African and Asian villages.

This paper studies one remarkable combination of these two dimensions of innovation type and innovation locality – the propensity of Indian IT innovation to tend towards the provision of services and the dominance of product innovation in Israeli high-technology clusters. India's IT-related services, from call-centers to software development, are considered to be the finest example of the success of developing economies in

technology-related innovation, due to their rapid growth, large scale, and influence on advanced economies. In contrast, there few Indian IT products have achieved a significant global market share. Quite the opposite is true for Israel – its defence and high-technology clusters are extremely successful in global markets, but this success is realized almost exclusively through products rather than services.

The main goal of this study is practical – by conceptualizing and testing the reasons for the existence of product and service innovation in both India and Israel, we wish to offer advice on how one might increase service innovation in Israel and product innovation in India. The current paper describes an exploratory study of these issues and continues with a brief description of the prior relevant literature, a description of the method and some initial results.

Comparative Studies of Innovation Clusters

There is now a long tradition of studying the similarities and differences in innovation practices and innovative products between different industrial clusters. A recent study from INSEAD – the Global Innovation Indexⁱ – widens the scope and systemizes the perspective of this literature stream by comparing innovation inputs and outputs in 130 countries. Inputs include institutions and policies, human capacity, infrastructure, and market and business sophistication (Israel rank: institutions-22; human capacity-14; infrastructure-21; business sophistication-19; India rank: institutions-44; human capacity-28; infrastructure-76; business sophistication-50). Outputs include knowledge, competitiveness and wealth. (Israel rank: knowledge-20; competitiveness-54; wealth-20; India rank: knowledge-23; competitiveness-24; wealth-90)

The current study builds on this Global Index and focuses on innovation inputs in both Indian and Israeli corporations. However, whereas the Global Index measures general innovation inputs, we focus here on inputs specific to product and service innovation. Specifically, for human capacity, we focus on attitude towards knowledge, the autonomy accorded to and degree of teamwork demonstrated by employees; for market sophistication we focus on customer and service orientation and on collaboration with customers; and regarding business sophistication we assess attitudes towards risk-taking, entrepreneurship and long-term goals.

Product versus Service Innovation

Most economic growth is in services. For example, in OECD countries, about two-thirds of business sector growth between 1985 and 1997 was in services. However, much of the literature about innovation tends to focus on product innovation, disregarding the differences between service and product innovation^{ii iii}. Technology-based product innovation traditionally focuses on technological R&D, often relegating customer-centered activities to second place; uncertainty is usually high, and success or failure often occur relatively rapidly. In contrast, technology-based service innovation is typically more gradual, less risky, while requiring closer interaction with customers and usually being related to improvements in processes.

As a result of these differences between product and service innovation, we would expect that service-innovation firms in general, compared with product innovation firms, will have a higher service orientation and higher tendency to collaborate with customers, higher risk-averseness and a longer-term planning horizon. We would also expect service innovation firms to show a higher degree of autonomy for employees and a higher tendency towards teamwork.

Method

This study is the result of a cross-country collaboration between two innovation consultancies, one based in India, and the other in Israel. Following several discussions between the two teams – both face-to-face in Bangalore and also by means of teleconferencing – it was agreed to assess relevant attitudes using both open and closed interviews with innovation managers at technology companies in each country. About twenty technology-related innovation companies in both India and Israel were identified and agreed upon between the teams. The companies in Israel included three communication infrastructure companies, a software services company for the telecom industry, the Israeli site of an electronics multi-national, a defence conglomerate, an agro-technology leader and two venture capitalists. The companies in India included IT services firms, and several software product start-ups.

The teams also discussed the main innovation inputs and agreed on those outputs that should be studied. A questionnaire was developed by first consulting the relevant literature. Risk-taking instruments are based on^{iv}, while customer orientation questions are based on^v. Then, in several teleconferences and one face-to-face meeting in Tel-Aviv, the actual phrasing of questions and their exact meaning as understood in each country and culture were discussed and agreed upon. The questionnaire is available as an online appendix at <http://www.demaya.com/article.asp?ID=11>

So far, about half the respondents have been interviewed. Face-to-face interviews typically took some ninety minutes, with the first hour dedicated to an open interview, leaving the final half an hour to fill-in the questionnaire. In India, interviews were conducted by the Indian team, while about half the interviews in Israel were conducted jointly by the two teams and the remainder by the Israeli team. The current paper reports initial results from the partial set of filled-in questionnaires. When data collection is complete, future papers will report on the full results of both the open interviews and the questionnaires.

Early Results

Similarities between India and Israel were apparent in many of the twenty or so interviews that we have conducted to-date. Both Indian and Israeli respondents perceive that capital and natural resources are scarce and that human capital is their only advantage. However, clear differences did emerge in some of their attitudes towards innovation.

Table 1 Summarizes qualitative differences as reflected in the partial set of questionnaires filled in so far – the left hand column represent service organizations in India, while the right hand column represent product firms in Israel.

	<i>Services in India</i>	<i>Products in Israel</i>
Human Capacity		
Knowledge	<ul style="list-style-type: none"> • High appreciation for knowledge of all types, • Eager to learn from others 	<ul style="list-style-type: none"> • High appreciation for knowledge of all types • Look to develop knowledge on their own
Autonomy	<ul style="list-style-type: none"> • Medium to high • Special respect to autonomy of experts 	<ul style="list-style-type: none"> • Medium to high • Little respect to organizational hierarchy
Teamwork	<ul style="list-style-type: none"> • Balance between individualism and teamwork 	<ul style="list-style-type: none"> • Balance between individualism and teamwork
Market Sophistication		
Service Orientation	<ul style="list-style-type: none"> • Strong • Manifested in time spent with customers, training and measurement 	<ul style="list-style-type: none"> • Medium to strong • Manifested in building caring relationships with customers
Collaboration	<ul style="list-style-type: none"> • Medium • Manifested in willingness to outsource, take the role of the integrators • Companies look to grow organically or through acquisitions 	<ul style="list-style-type: none"> • Medium to low • Inclination towards in-house development • Companies look to be acquired and exit
Business Sophistication		
Planning Horizon	<ul style="list-style-type: none"> • Balance the long term and short term 	<ul style="list-style-type: none"> • Emphasize the short term perspective
Risk-Taking	<ul style="list-style-type: none"> • Medium • Focused on market and customers • Inclination towards gradual changes 	<ul style="list-style-type: none"> • Medium • Focused on product and technology • Inclination towards substantial changes
Decision-Making	<ul style="list-style-type: none"> • Both analytical and exploratory • Finance is dominant, focus on profitable growth 	<ul style="list-style-type: none"> • Both analytical and exploratory • R&D is dominant, focus on growth
Entrepreneurship	<ul style="list-style-type: none"> • Few employees focus on innovation • Prefer the safety of the corporation • Start with the market • Adhere to processes • Creativity in business models 	<ul style="list-style-type: none"> • Few employees focus on innovation • Less appreciation for the safety of the corporation • Start with technology • Disregard processes • Creativity in the technology

Table 1: Qualitative differences

Discussion

The current paper presents partial results from a survey of Indian and Israeli technology corporations about their attitudes towards product and service innovation. Similarities are to be found in the areas of risk-taking, and decision-making. Differences are found in the areas of planning horizon (with Israeli companies focusing more on the short-term), entrepreneurship (which tends to be stronger in Israel), and service orientation and collaboration with customers (where Indian companies tend to score much higher).

The survey of forty corporations is currently being completed. We plan to present detailed quantitative results and many more qualitative insights in the near future. One promising direction which we haven't dealt with in the current paper is the "off-diagonal" corporations – Indian product firms and Israeli service organizations. We expect to present also feedback from Israeli and Indian entrepreneurs to this survey.

However, even the current early results can indicate to managers in both countries, and elsewhere, how best to enhance their scope of innovation. Israeli managers, for example, need to cultivate a culture of service orientation, customer collaboration and wider knowledge-seeking as basis for service innovation. Similarly, Indian companies should work on R&D departments with a stronger entrepreneurship culture and stronger self-reliance in knowledge creation.

Finally, cooperation between Israeli product companies and Indian services is called for, and as this cross-country collaborative study reveals, such collaboration could prove very productive for both sides.

ⁱ Dutta, S., The Global Innovation Index, *INSEAD*, 2009.

ⁱⁱ Fitzsimmons, J.A. and M.J. Fitzsimmons, *Service Management: Operations, Strategy, and Information Technology*. 5th edition ed. 2005: McGraw-Hill.

ⁱⁱⁱ Ginzburg I., A. Higgins and Y. Lichtenstein, Looking for the Locus of Innovation in New Service Development, *HICSS*, 2006.

^{iv} Das S. R., P. M. P. Joshi, Process innovativeness in technology services organizations: Roles of differentiation strategy, operational autonomy and risk-taking propensity, *Journal of Operations Management* 25, pp. 643–660, 2007.

^v Lytle, R. S. and J. E. Timmerman, Service orientation and performance: an organizational perspective, *Journal of Services Marketing*, 20/2, pp. 136-147, 2006.