



A SURVEY ANALYSIS OF INNOVATION IN NPD: CASE FROM INDIA

Nitesh Kumar

M.Tech Scholar, RGPM, Bhopal

Arun Kumar Bhuneriya

Professor (Mechanical), RGPM, Bhopal

ABSTRACT

Innovation and creativity in new product development play a key role. Industries or department involved in developing new projects or product requires lot of basic kind of things. The present study involve case studies of eight Indian food industries especially SMEs and a triangulation survey of 85 innovative Indian companies. From literature critical factors are identified and a triangulation kind of survey is used for the data collection. SPSS software is being used to data analysis and finding the results. The findings indicate the innovation has many factors and all identified factors are important for a company to be innovative for new product development.

Keywords; NPD, Innovation, SMEs

BACKGROUND AND MOTIVATION

The history of study and analysis of innovation goes back to three quarters of a century. Much of the early work on innovation, however, concerned the large corporation and analysed innovation from a technological perspective. Like much of SMEs research, innovation studies of small enterprises commenced later and were less numerous. The focus of such studies, however, remained high-technology enterprises. The breakthrough nature of their innovations, the scorching pace of their growth and demolition of some of the most revered names in the world business by them, romanticised many of the more successful of these ventures and made them a part of the folklore of business history. Businesses of this kind were, thus looked at with great interest and enthusiasm and continue to be a focus of academic and journalist interest. Innovative endeavours of people in traditional low-tech industries did not evoke similar response. Their innovations were less breathtaking. They grew rather slowly and did not confront large corporations head-on, knowing full well, the disastrous consequence of such a contest. Academics and media ignored these 'lacklustre' enterprises. This effort, to address the



imbalance, attempts a comprehensive analysis of innovation in this, hitherto largely neglected, area of inquiry.

This research, however, is prompted not only by a relative scarcity of work on small low-tech enterprises. It springs from the belief that innovation studies of such enterprises are equally, if not more, essential. Though, it is now well accepted that SMEs are quite influential in determining the processes of income generation and employment creation in a region (Birch, 1981), it is less understood that in economies such as that of Madhya Pradesh a state of India, the competitiveness and rates of growth are influenced substantially by the functioning of low-tech and traditional industries. In the year 2014, these industries constituted 93% of businesses, 89% of employment and 70% of turnover in the Indian economy (Indian Business Statistics, 2015). The future of Indian economy and the well-being of Indian people, at least in the medium term, thus, depend significantly on the performance of these industries. Given the contribution of innovation in the competitiveness and growth of businesses, the significance of innovation studies in traditional low-tech industries is too obvious to consider.

OBJECTIVE

The objective of this research is to identify and analyse the main drivers of product innovation in the Indian food industry and the underlying process through which innovative Indian food companies develop new products. It further aims to triangulate the findings of this work through a larger survey of innovative Indian companies.

INNOVATION

Dictionary definitions of innovation usually focus on the development and successive refinement of inventions into usable products or techniques that are deemed worthy of being launched in a market or used internally within an enterprise (Frenz and Oughton, 2005). Amongst scholars, however, there is a fair amount of noticeable disagreement on the definition of innovation. This is attributed to the heterogeneity of sources and outcomes of innovation, which makes it difficult to identify and analyse (Dosi, 1988) and is partly responsible for often-conflicting outcomes of research on innovation (Le Bars et al., 1998 and Grunert et al., 1997).

As inventions and innovations are associated phenomena, innovation scholars make it a point to clarify the distinction between the two. It is explained that though invention is a prerequisite for many innovations, it is only when an invention is exploited commercially that it results in innovation (Brenner, 1990). Another, though less popular approach to distinguish innovation from inventions has been to claim that inventions relates to new ideas in general whereas



innovations are ideas that are new within a specific context (Van de Ven et al., 1989; Damanpour and Evan, 1984 and Damanpour, 1987).

DETERMINANTS OF INNOVATION: INTERNAL CHARACTERISTICS OF ENTERPRISE

A good deal of innovation literature is focused on identifying the determinants of innovation. The internal factors that have been found to be significantly related to the innovative performance of firms are presented in Figure 1 and explained in detail subsequently.

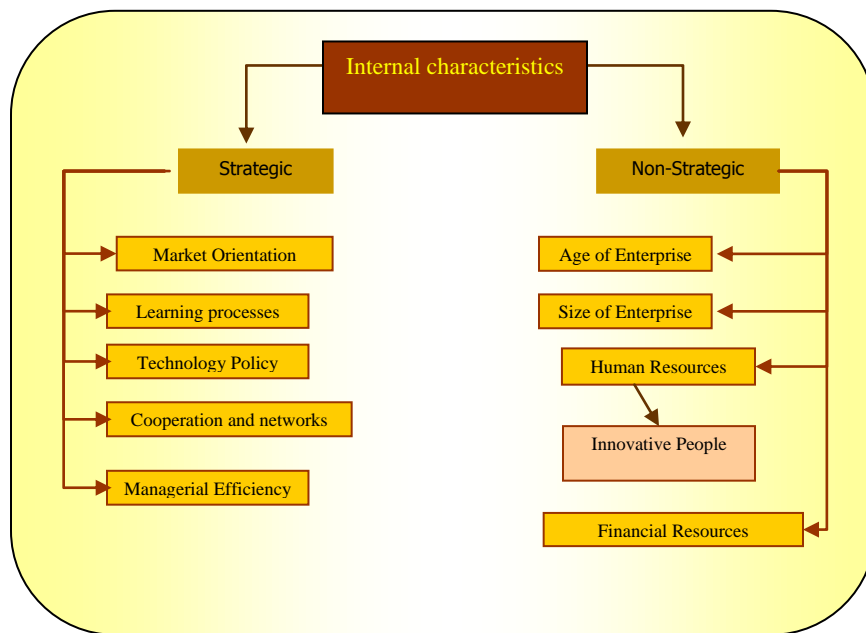


Figure1: Internal determinants of innovation

THE RESEARCH QUESTIONS

For the reasons explained above, this research tries to find answers to the following questions.

- (a). Is there an underlying common process of innovation in the Indian food SMEs?
- (b). What are the internal strategic and non-strategic determinants of innovation in the Indian food SMEs?



- (c). What part(s) of standard taxonomy of innovation, the successful innovation in the Indian food SMEs fits into it?
- (d). What aspects of product innovation by Indian food SMEs can be generalised in the wider Indian economy?

THE METHOD

The main body of this thesis and its principal conclusions are derived from case studies of eight innovative Indian food companies using a qualitative rather than quantitative method or, to use a more contemporary vocabulary, deploying an exploratory rather than a confirmatory research approach (Onwuegbuzie and Teddlie, 2003). The conclusion so derived are subsequently attempted to be confirmed through a survey of Indian companies who have successfully developed new products.

THE CASE STUDY COMPANIES

The case study companies for this research comprised of eight enterprises, all located within the state. They are identified only as Company A, Company B etc. in order not to compromise on the confidentiality of information they provided.

No.	Companies	Age	Products
1	Company A	35	Pizzas
2	Company B	25	Pate
3	Company C	23	Bakery, confectionery
4	Company D	13	Ice-cream
5	Company E	32	Haggis, soups, candies, jam
6	Company F	17	Seafood, smoked salmon
7	Company G	10	Bakery, confectionery
8	Company H	9	Soups, ready meals

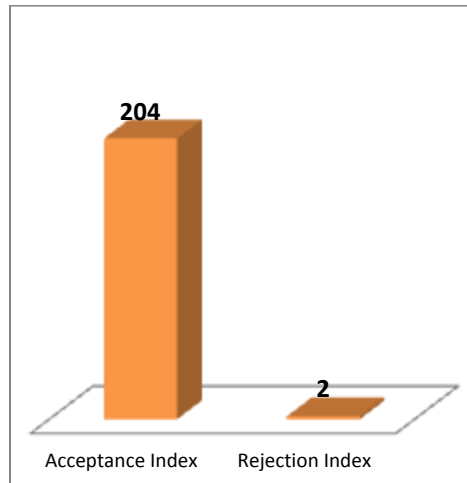
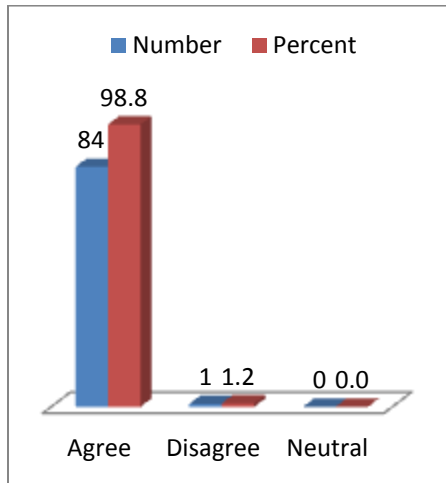


SURVEY FINDINGS

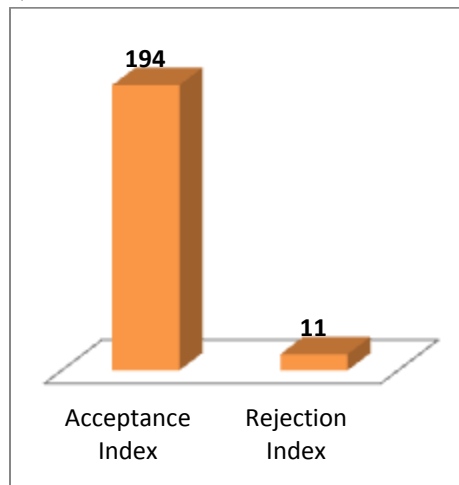
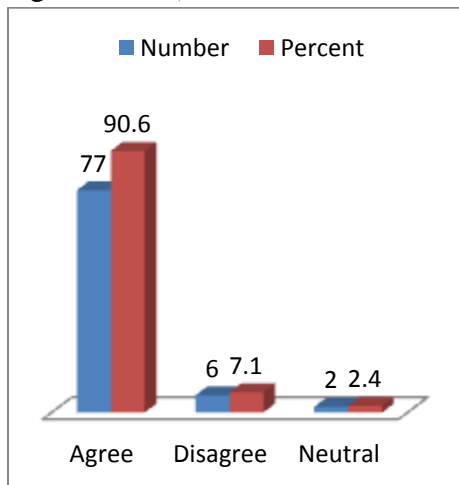
The survey questionnaire listed the industry segments within which the responding companies were asked to identify themselves. In case they thought that none of these accurately describes their industry sector, they were asked to tick on 'other' and then provide a brief description. The industry segments, selected from the Indian Business Statistics 2014 and mentioned in the survey questionnaire are as follows:

PROPOSITIONS SUPPORTED BY THE SURVEY

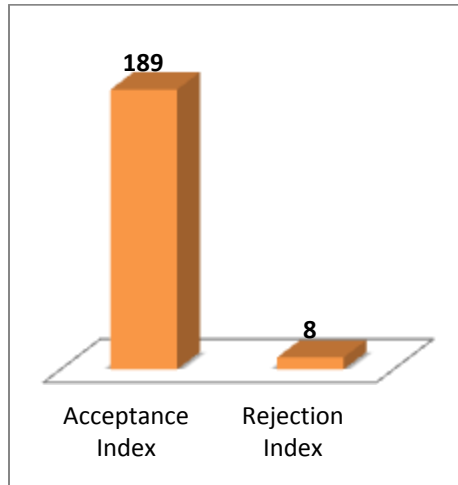
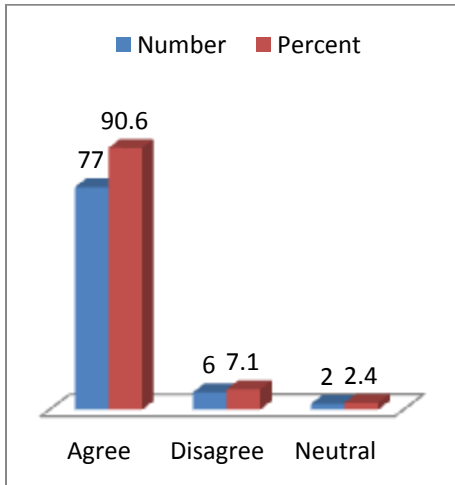
We have been learning continuously from our efforts to develop new products



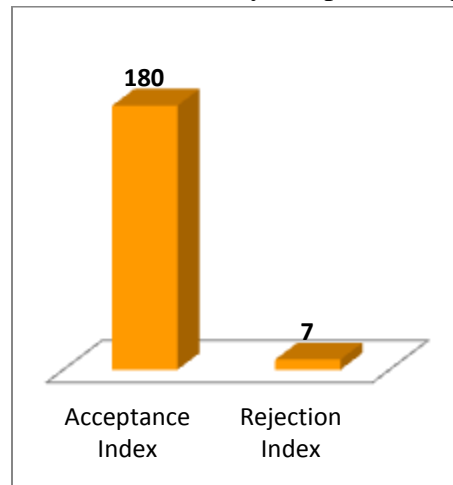
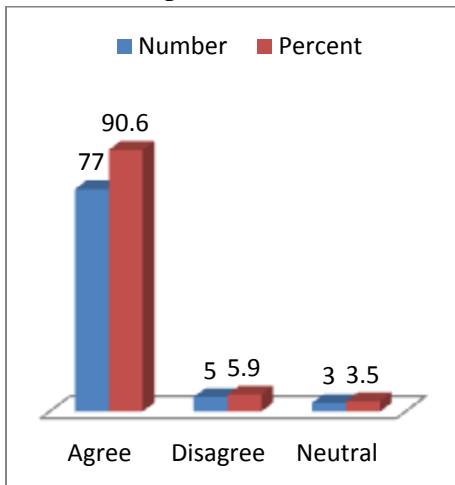
People in my company working on new product development also perform other roles within the organisation (Cross-functional innovation).



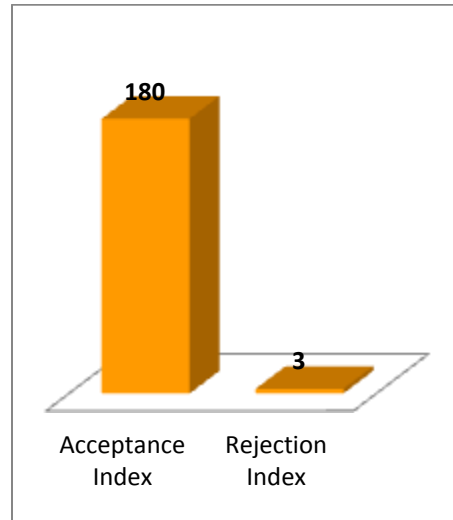
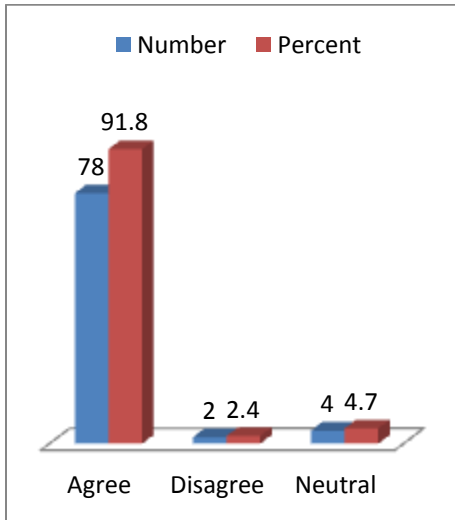
The product development team in my company is made up of 'creative' people.



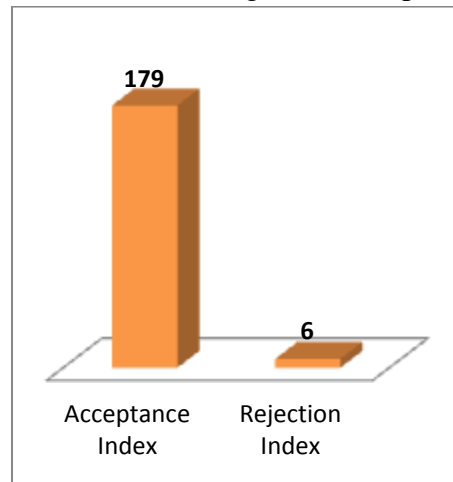
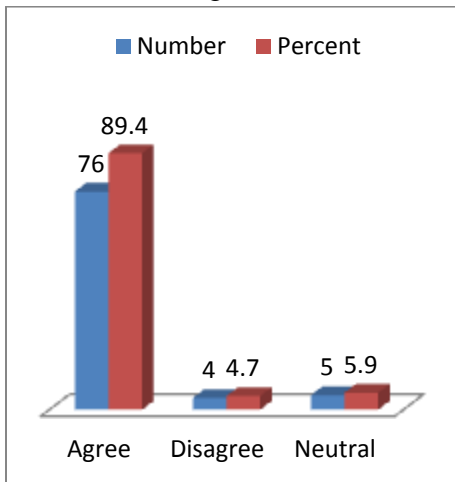
Our flexible production methods allow us to alter and modify our products quickly.



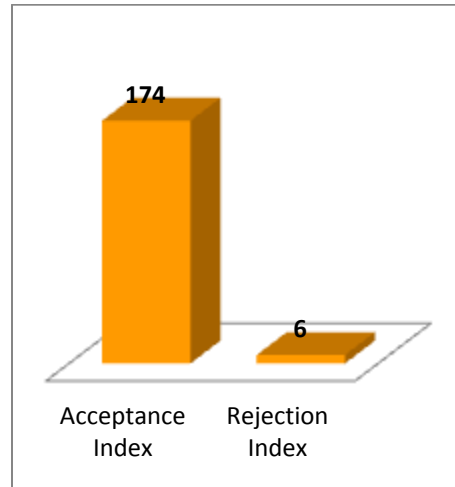
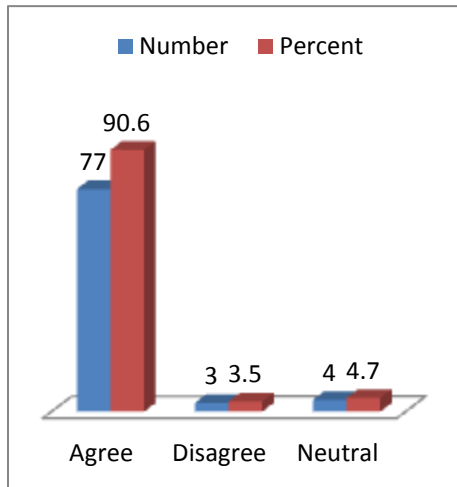
We understand the needs and circumstances of our customers very well.



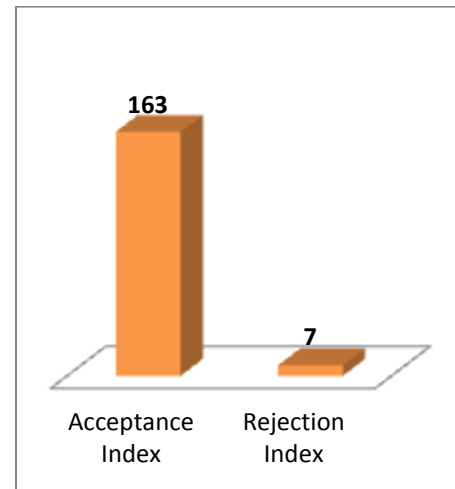
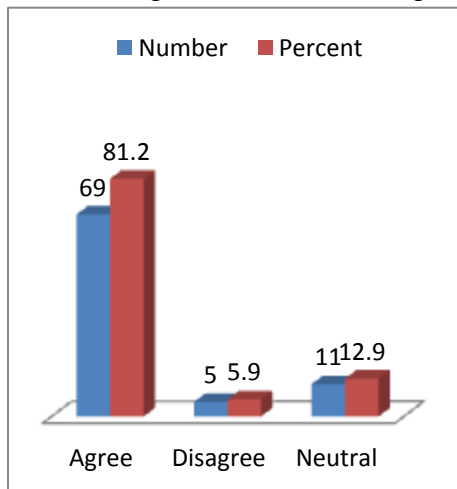
We remain in regular contact with our main customers during the development of new products.



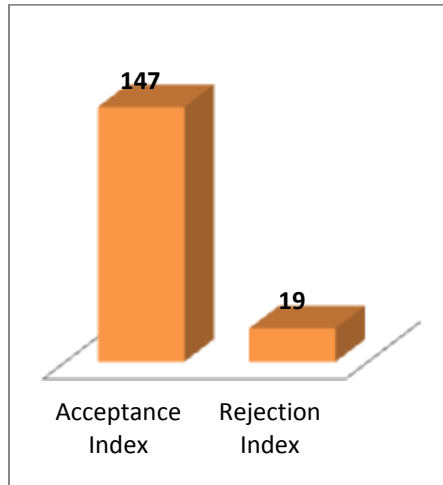
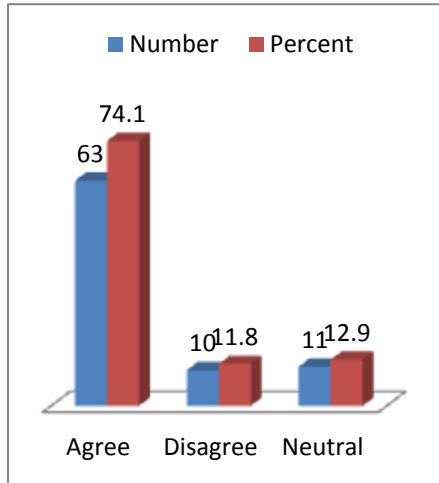
There is a good fit between what the market needs and what we can provide.



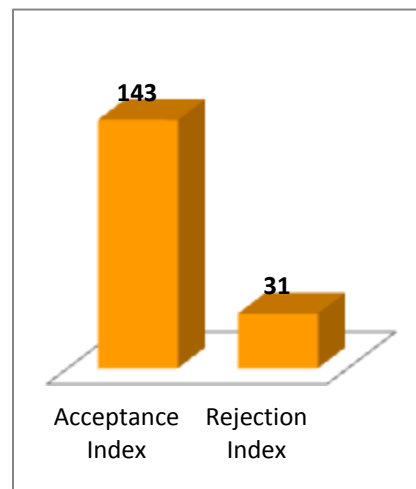
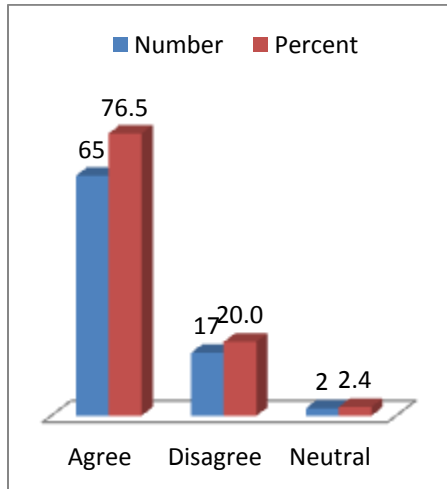
Development of 'premium' products has provided my company better returns on money spent than development of 'low-cost' products.



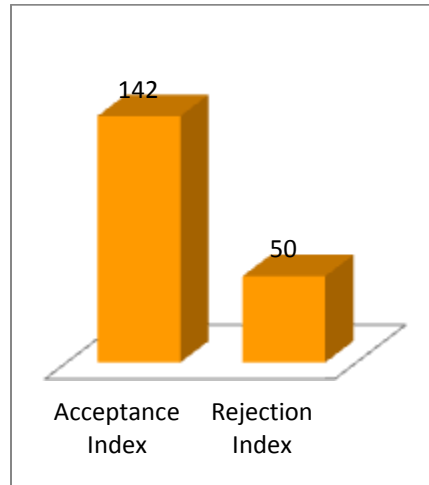
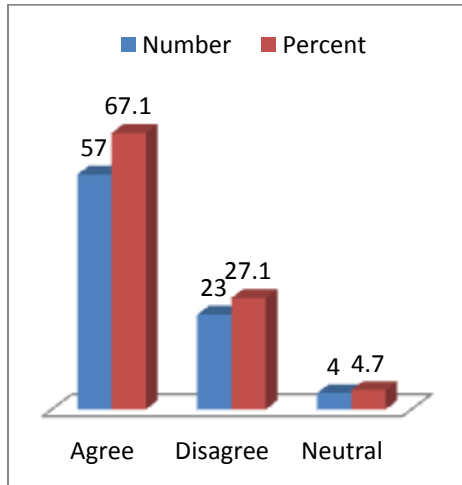
I would describe my company as a 'low-volume-high-variety' business rather than a 'high-volume-low-variety' business.



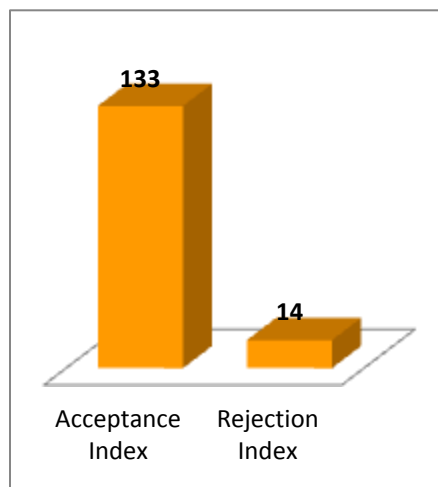
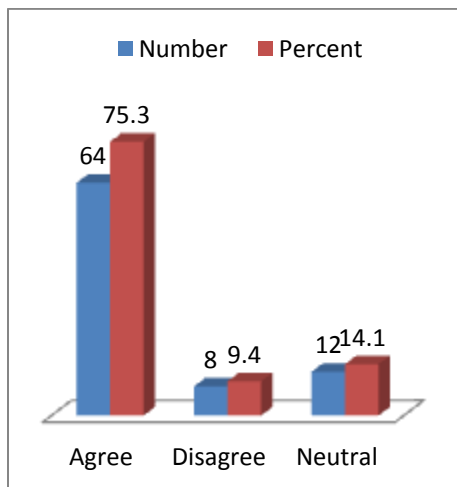
I would describe the innovation process in my company as informal.



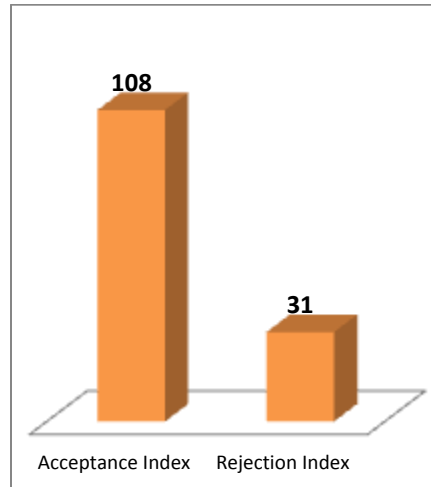
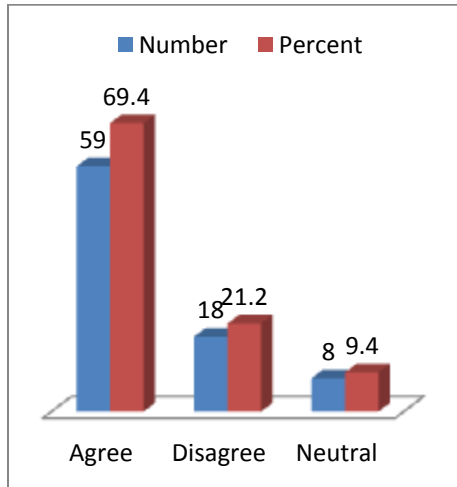
There is no formal R&D department in my company.



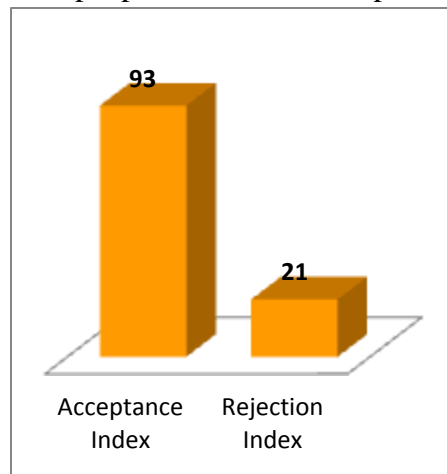
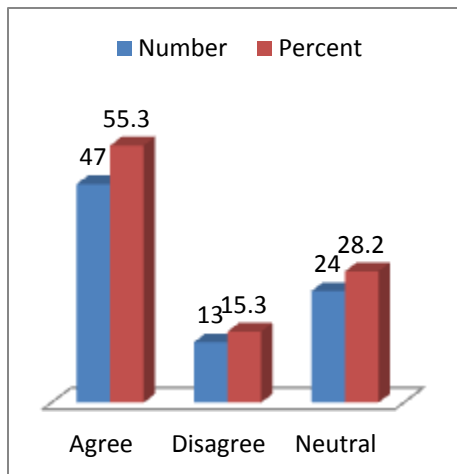
Our success in new product development is due to our ability to explore and reach potential markets.



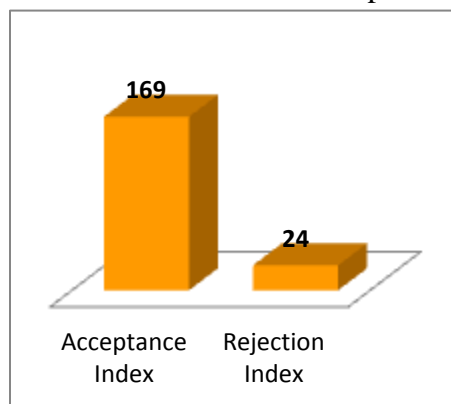
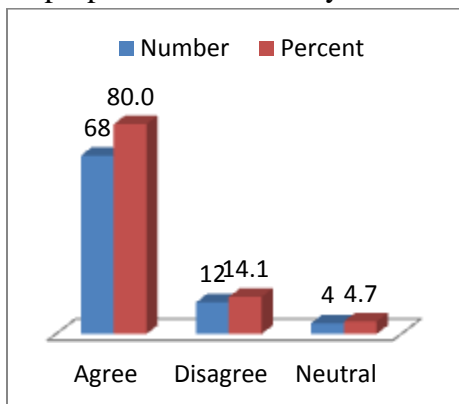
We are able to develop markets for our new products without any major advertising or marketing effort



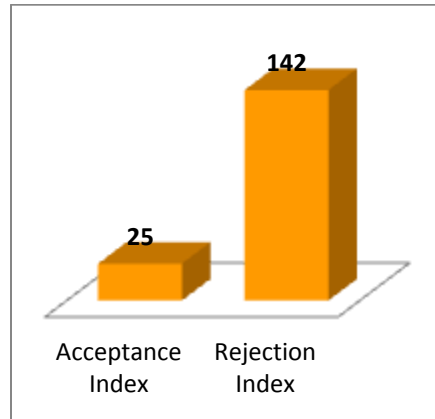
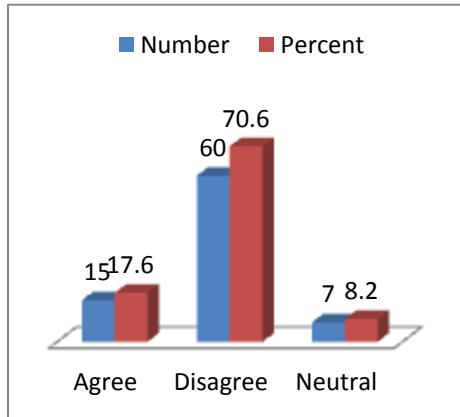
We are able to recruit and retain the competent people needed for new product development.



The propositions refuted by the survey Constraints in our efforts to develop new products.

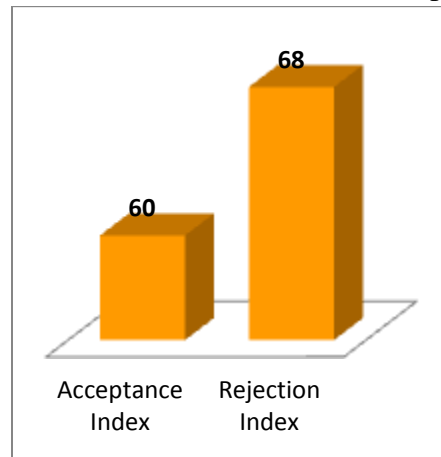
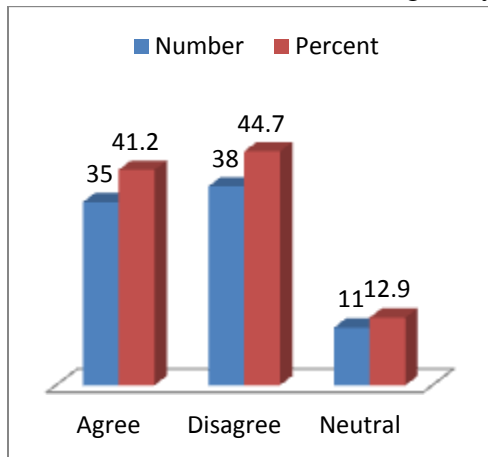


We sell most of our new products to large retailers.



Propositions with mixed response

Member/s of our NPD teams regularly travels to new locations in search of new product ideas.



Successful new products developed by us are very different from our existing products.



The following graphic lists the survey propositions ranked in order of their normalised acceptance indices.

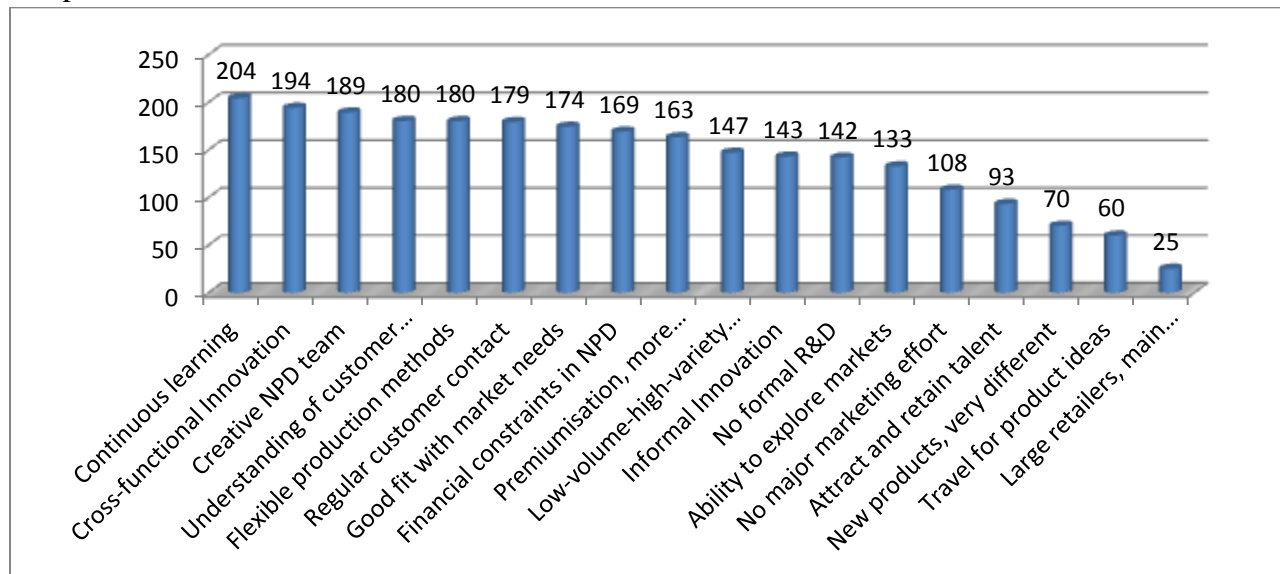


Figure 21: Strength of agreement for survey propositions

CONCLUSIONS

This research set out to investigate the process of innovation and new product development in the Indian food SMEs. As no previous work exists in this area, primary data collection involving case studies of eight small food companies was undertaken. For the purpose, from an analysis of determinants and process of innovation reported in the literature, a framework of analysis was created. Interview summaries based on detailed notes were prepared for non-transcribed interviews. The semi-structured nature of interviews led to the generation of considerable information not previously reported in literature. Finally, a larger survey of Indian companies that have successfully developed new products was carried out to triangulate the case study findings. The analysis of data indicates that the companies having ability to develop new product has innovative people and means to think differently.

REFERENCES

- Amaratunga, D. and Baldry, B. (2001), "case study methodology as a means of theory building: performance measurement in facilities management organisation s", Work Study, Vol. 50 No. 3, pp. 95-104



International Journal of Business Quantitative Economics and Applied Management Research

ISSN: 2349-5677

Volume 2, Issue 8, January 2016

- Onwuegbuzie, Anthony J and Leech, Nancy L (2005) “On Becoming a Pragmatic Researcher: The Importance of Combining Quantitative and Qualitative Research Methodologies”, *International Journal of Social Research Methodology* Vol. 8, No. 5, pp. 375–387
- Frenz, Marion, Michie, Jonathan and Oughton, Christine (2005) “Regional Dimension of Innovation: Results from the Third Community Innovation Survey”, *International Workshop Empirical Studies on Innovation in Europe*, Faculty of Economics, University of Urbino
- Hall, B (2005) “Innovation and Diffusion” in Fagerberg, J, Mowery, D C and Nelson, R (Eds) *The Oxford Handbook of Innovation*, Oxford University Press, pp 459-485.
- Barnett, Elizabeth and Storey, John (2000) “Managers’ Accounts of Innovation Processes in Small and Medium-Sized Enterprises”, *Journal of Small Business and Enterprise Development*, Volume 7, Number 4, Pp 315-325
- Brenner, Reuven. (1990) “Rivalry: In Business, Science, Among Nations” Cambridge University Press, March
- Dosi, Giovanni (1988) “Sources, Procedures and Microeconomic Effects of Innovation”, *Journal of Economic Literature*, Vol. XXVI
- Le Bars, A., Mangematin, V. and Nesta, L. (1998) “Innovation in SMEs: The Missing Link”, Paper Presented at the High Technology Small Firms Conference, University of Twente, Enschede.
- Grunert, K. G. and Ottowitz, T. (1997) “Neumarkt Lammsbrau: Brewing Beer for Greens”, in Traill, B. and Grunert, K. G. (Eds) *Product and Process Innovation in The Food Industry*, Blackie Academic & Professional, London, Pp 99-111.
- Damanpour, F. (1987) “The Adoption of Technological, Administrative and Ancillary Innovation Impact of Organisational Factors”, *Journal of Management*, Vol. 13 No. 4, pp 675-88
- Damanpour, F. and Evan, W. M. (1984) “Organisational Innovation and Performance: The Problem of Organisational Lag”, *Administrative Science Quarterly*, Vol. 29, pp 392-409.
- Van de Ven, A.M., Angle, H. L. and Poole, M.S. (Eds) (1989) “Research on the Management of Innovation: The Minnesota Studies” Harper & Row Publishers, New York, NY