CHAPTER 9

BUSINESS ECONOMICS

Doctoral Theses

01.   AGGARWAL (Anuj)
        **Internationalization of Indian Enterprises in the Pharmaceutical and Software
        Sectors.**
        Supervisors : Prof. V. K. Kaul and Dr. Yamini Gupt
        <u>Th 24144</u>

Abstract
(Not Verified)

The Indian industry has witnessed a tremendous growth in the 1990's and 2000's as a result of globalization, privatization, technological revolution and strategic government interventions. As a result, exports and outward foreign direct investment have emerged s the two important modes of internationalization for the Indian enterprises. The study aims to study the link between internationalization and its impact on firm performance ver a period of time. The time-period taken in the study is from 2003-04 to 2012-13. Further, the study traces the evolution of internationalization in the Pharmaceuticals and T sectors, analyze the role of organizational variables in determining the internationalization success, and the different internationalization paths/approaches adopted by enterprises to meet their strategic objectives The key finding of the empirical analysis is that there is a positive correlation between internationalization and firm performance measured by return on assets (ROA), in both the Pharmaceuticals and IT sectors. Further, in order to gather the perceptions of top level managers with respect to a set of internationalization variables and firms characteristics, a structured questionnaire is circulated among top-level executives of sample firms. The key finding of the survey is that firms in both Pharmaceuticals and IT sectors have identical preferences in terms of mode of entry, location, key innovation partners, organizational resources/capabilities, and relationship with customers/suppliers. They differ in terms of the organizational structure, while top managers in IT industry prefer "global product structure"; in case of Pharmaceuticals they prefer "Mixed structure "Moreover, two case studies have been selected from each of the sectors to analyze dynamic internationalization patterns : Infosys and Wipro from IT; Ranbaxy and Wockhardt from Pharmaceuticals. In the end, the study has meaningfully contributed to the existing literature of International entrepreneurship.

Contents

1. Introduction 2. Literature review 3. Research methodology 4. Internationalization of pharmaceutical and IT sectors in India 5. Empirical findings 6. Case studies of selected enterprises 7. Conclusion and policy recommendations. Bibliography. Annexures.

02.   LALIT KUMAR
      Effects of Climate Change : A Study of Select Agriculture Crops for India.
      Supervisors : Prof. Rashmi Aggarwal and Vijay P. Ojha
      Th 24146

Abstract
(Not Verified)

Climate is defined as "average weather", in terms of variability of temperature and precipitation over a period of 30 years and climate change has become synonymous with global warming which is the result of sustained increase in emission of greenhouse gases. According to the latest report of IPCC, 2018, the earth would warm by 1.5 degree Celsius by 2040, much earlier than expected. 10 out of the last 15 years have been the warmest during the past 100 years and business as usual approach is simply not an option for long term sustainability. The study attempts to estimate the impact of climate change on the agriculture sector of India by taking eight major crops of India namely, Rice, Wheat, Sugarcane, Cotton, Coarse Cereals, Oilseeds, Maize and Pulses. The three climatic variables taken into consideration are annualme an minimum temperature, annual mean temperature and annual monsoon rainfall. The results from the study shows that as the annual mean minimum temperature increases by 1 C, the rice production in India declines by around 11.43 million tons per year. For wheat crop, when annual mean temperature increase by 1 C, the wheat production increases by 7.8 million tons. An Augmented Cobb-Douglas production function is used to estimates the impact of climatic and non-climatic factors on agricultural GDP. Apart from the above three climatic factors, the non-climatic factors include capital formation in agriculture, irrigated and non-irrigated area, total area under cultivation, etc. It estimates that for every 1 percentage increase in annual mean minimum temperature, the agricultural GDP would decline by 1.73% per year. The study estimates that the deficit gap between water demand and supply would be around 630 Billion Cubic Meter by 2050 due to over exploitation of ground water resources and uneven rainfall pattern due to climate change.

Contents

1. Introduction 2. Literature review 3. Research methodology 4. Water resources and climate change 5. Climate parameters for India : Trend analysis 6. Climatic variables and annual monsoon rainfall 7. Effect of climate change on crop output and agriculture GDP : All result analysis and discussion 8. Overall conclusion and policy recommendations. References.

03.   MENDIRATTA (Priti)
      Credit and Housing Prices : Inter Linkages and Impact.
      Supervisors : Dr. Ananya Ghosh Dastidar and Dr. Mausumi Das
      Th 24145

Abstract
(Verified)

This thesis critically examines the link between the loan market and the housing market that works through mortgage loans, both theoretically and empirically. Repayment of mortgage loans depends on the future earning potential of the borrowers, which in turn depends on the overall state of the macro economy. In our theoretical model we illustrate that under buoyant macroeconomic conditions, all borrowers pay back their loans and both the loan market and the housing market function well. However, a temporary income shock in the economy, which undermines the repayment ability of the borrowers, may

result in imprudent lending by banks thereby leading to a crisis. This calls for strict monitoring of mortgage loans by regulatory authorities. Empirically, we analyze separately two components of financial lending; credit too use holds and nonfinancial corporations and also aggregate credit to the private nonfinancial sector (in US dollars) for both developed and developing nations, with particular emphasis on the latter. Considering the availability of data on both private credit and housing prices, our analysis consists of 41 countries (including 13 emerging market economies). In our first empirical chapter, we employ an unbalanced panel of quarterly data spanning from 1997 Q1 to 2016 Q4 (ten years before and ten years after the global financial crisis) and a dynamic panel data model is estimated using Blundell Bond (1998) two-step GMM estimator. We also carry out causality analysis between credit and housing prices for 13 developing countries and 13 Indian cities in our second empirical chapter. Time series econometric tools of unit root, co integration, and causality tests are used to test for the existence of long-run relation and direction of causality for each country. We provide ample evidence on co-movement between cycles in housing prices and credit. Estimation results show the significance of housing prices and investors sentiments in credit markets.

Contents

1. Introduction 2. Mortgage loans, risky lending and crisis 3. Credit, housing prices, expectations and the macro economy : Evidence from developed and developing countries 4. Inter linkage between credit and housing prices : Evidence from developing countries 5. Conclusion.

04.   SINGH (S. Shekhar)
Some Aspects of Mergers and Acquisitions in Indian Industry.
Supervisors : Prof. Vijay Kumar Kaul and Prof. Aditya Bhattachajea
Th 24249

Abstract
(Not Verified)

The study analyzes three issues in respect to mergers and acquisitions (M&As) occurring between 1999 - 2011 in some high-tech industries. First, whether these M&As have caused shareholders' wealth to increase? The study deploys differences-in-difference (DID) method to evaluate acquirer performance using both parametric and non-parametric tests. Results of the analysis show that majority of acquirers have performed better than their respective benchmark group of firms. Besides, horizontal M&As are more successful than the other types; smaller firms, have performed better than their larger counterparts and so have firms from drugs & pharmaceuticals industries. Second, whether such M&As have benefited consumers or have enabled firms to increase their profit margins? Theory suggests that in case of profitable M&As, net sales expansion by firms is an evidence of realization of merger specific synergies, net sales contraction a sign of market power consolidation. The study compares post-merger profits and net sales of combined firms with those of their suitably chosen counterfactuals using Differences- in- Difference (DID) technique. It finds that larger firms resort to M&As to enhance their market power, while their smaller counterparts do so to realize synergies. Approximately half of the total number of M&As considered is likely to benefit the consumers. Finally, the study explores whether, acquiring firms are using the device of M&As to access technology. It constructs a panel data of firms and deploys random effect logit estimation model where probability of acquisition is modelled as a function of certain variables capturing the innovative, financial, and performance characteristics of

firms. The study finds that firms with higher R&D intensity are more actively involved in the acquisition activity ostensibly to access knowledge products. Large firms with greater growth opportunities, comfortable liquidity and lower levels of debt are more likely to acquire.

Contents

1. Introduction and overview 2. Profitability and acquisition : Evidence from Indian industries 3. Mergers and acquisitions : Synergy or market power 4. R & D intensity 5. Summary and conclusion. Bibliography .Appendix.