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## Measurement Scales for Obsolescence Risk in Business Buying Of High-Technology Products

Gururaj Kidiyoor\*

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### ABSTRACT

Consumer-perceived risk is typically captured along its dimensions, namely, physical risk, financial risk, performance risk, time risk, social risk and psychological risk. These are considered generic risk dimensions, relevant in most buying situations. In addition to these, context-specific risk dimensions (e.g. security risk in online buying) have been included in several studies. This exploratory research aims to develop measurement scales for one such risk dimension termed as “obsolescence risk”, in the context of purchase of high-technology products by business buyers. High-technology products are characterised by state-of-the-art development and have typically short and volatile lives. For the consumers, high technology is synonymous with high risk of obsolescence. Hence, studies that attempt to capture consumer risk for high-technology products need to necessarily incorporate the impact of obsolescence risk. However, while scales to measure generic risk dimensions exist, there is none to capture obsolescence risk.

In this study, the scales were developed based on data collected on perceptions about negative consequences of technological obsolescence from business buyers. The data were subjected to factor analysis that grouped the data under six factors, which was then reduced to four statements. The data reliability was tested using Cronbach's alpha and the validity was established through convergent and discriminant validities. This study contributes to the existing body of risk research by developing scales that can be used in studies that warrant measurement of obsolescence risk. Though these scales may not be appropriate for products that are not high technology and in situations outside business buying, the study provides

certain directions to researchers wanting to develop measurement scales for context-specific risk dimension

**KEYWORDS:** Perceived risk; High-technology products; Business buying; Obsolescence risk

**JEL Classifications:** M3, M10

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## **Default Risk Modelling in Credit Cards- A Study of Merchant and Acquiring Bank Relationship**

Nishant Agarwal\*, Meghna Sharma\*

### **ABSTRACT**

A Globally integrated business environment presents a host of expansion opportunities to the banks, particularly related to credit cards business. These opportunities, however, have risk attached to them. This risk is present in all possible forms: operational risk, financial risk, country risk, etc. Financial risk has a unique nature of being 'invisible' at a given point in time. It usually occurs in the future. Hence, it becomes necessary to foresee and predict it. Moreover, in credit cards' business, financial risk is inherent in the core operations. Banks, in the credit card business, face financial risk in the form of both credit risk and fraud risk. Both of these can be caused by either the card holders or the merchants. In this paper, we have focused on a very specific aspect of the financial risk, known as the credit default risk, posed by the merchants to their respective acquiring banks. We have created a data-driven solution, which explains the relationship between the merchants and their acquiring banks from a credit risk perspective and acts as an "early warning" system for the management. Our solution is based on a logistic regression model; developed using a statistical package called Statistical Analysis System (SAS) This model assesses the merchant portfolio of the acquiring bank and assigns a "probability score" of default (PD) to each merchant. Such a score warns the management in advance of probable future losses on merchant accounts. Banks can rank order merchants based on their PD score, and instead of working on the entire merchant portfolio, they can focus on the relatively riskier set of merchants

**KEYWORDS:** Merchant risk, Acquiring bank, Risk management, Risk, Credit risk management, Logistic regression, SAS

**JEL CLASSIFICATIONS:** G32

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## **Economic Growth, Employment and Rising Education Qualifications of Workforce in Indian Economy**

Amit Sharma\*

### **ABSTRACT**

The paper uses econometric models for analysing rising education qualifications of the manpower in the process of growth of GNP in India from 1972–73 to 2011–12. Period is classified into two parts: 1972–73 to 2003–04 and 2000–01 to 2011–12 for analytical purpose. Findings reveal that GNP grew 2.82 times more rapidly than total employment and employment of below graduates in first period, but GNP increased 8.03 and 4.85 times more rapidly than total employment and employment of graduates during the second period. GNP increased 19.4 times more rapidly than employment of below graduates, which declined during the second period. Employment of graduates and above rose 1.83 and 5.16 times more rapidly than GNP and employment of below graduates in first period. But, employment of graduates per below graduate increased in both the periods. Employment of below graduates declined in second period, suggesting replacement of less by more qualified personnel. Time series of GNP is found non-stationary, while time series of all three categories of employment emerges stationary on the Dickey-Fuller unit root test. Distributed lag specification of Solow's modified production function, with graduates per below graduates as determinant of output, yields satisfactory results. The function is also valid on Engel-Granger unit root test of residuals/co-integration. Results of the study lend support to the theses that (i) growth of employment has lagged behind the growth of economy and (ii) more qualified persons have been displacing the less qualified manpower in employment.

**KEYWORDS:** GNP, Growth, Education qualifications, Employment, Graduates and above, Distributed lag model, Engel-Granger unit root test.

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## **‘EVA’ As an Indicator of Shareholders’ Wealth Maximisation in Construction Industry: A Comparative Study of DLF and L&T**

Sandeep Goel\*

### **ABSTRACT**

There has been a universal pressure on firms to create shareholder value; therefore, a suitable measure of corporate financial performance and incentive compensation plans that encourage managers to increase shareholder wealth is always stressed upon. One professedly recent innovation in the field of financial performance measurement is a trade-marked variant of residual income known as economic value added (EVA). This paper attempts to highlight the importance of EVA in valuing the financial performance of a company and its impact on shareholder value in terms of market returns. It attempts to analyse the EVA reporting practices of the Indian construction companies on comparative basis with respect to value creation for the shareholders.

**KEYWORDS:** EVA (economic value added), Net operating profit after tax (NOPAT), Weighted average cost of capital (WACC), Market, Return

**JEL CLASSIFICATION:** G3, G32

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## **Credit Risk Management Operations and Systems: Does Ownership Matter?**

Anju Arora\*

### **ABSTRACT**

The credit risk management (CRM) operations and systems provide the tools, procedures and techniques to effectively perform the CRM process. The underlying objectives of implementing CRM operations and systems, namely, measuring risks underlying credit risk in a timely manner; ensuring that actual risk positions match with the defined acceptable total risk; applying risk mitigation measures in time if there is any breach of guidelines, as defined by the CRM policy, etc. make a strong case for an empirical study on the CRM operations and systems at the transaction level and at the portfolio level. Various recent studies have shown that the Indian banking sector now compares favourably with banking sectors in the region on metrics like growth, profitability and non-performing assets. Increased competition, deregulation of interest rates, more functional autonomy and operational flexibility to commercial banks in India make a strong case for investigating closely their CRM operations and systems. The present study offers an empirical evidence regarding impact of ownership on practices of commercial banks in India relating to CRM operations and systems, both at the transaction level and at the portfolio level and lists down significant difference in their strategies, if any. Using primary data from 35 Indian scheduled commercial banks (24 public sector banks and 11 private sector banks) the present study further compares them with benchmark practices in this regard. It also identifies specific CRM operations and systems at the transaction level and at the portfolio level that the public sector banks and the private sector banks in India should improve upon in the near future. The study shall be useful for bank management, regulatory authority, policy makers, bank depositors and academicians in gaining insight into the impact of bank ownership, an important distinguishing bank characteristic, on the CRM operations and systems

**KEYWORDS:** Credit risk management, Operations and systems, Credit portfolio risk, Credit risk rating framework, Public sector banks, Private sector banks, Indian banking sector.

**JEL CLASSIFICATION:** G20, G21, G32

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# **An Overview of Investment Efficiency of General Insurance Companies in India: A DEA**

Sumninder Kaur Bawa\*, Navjeet Kaur\*

## **ABSTRACT**

The study aims at finding out the efficiency of insurers in terms of their investment behaviour. Two models have been used in the data envelopment analysis (DEA) in order to measure their efficiency. For the first model, one input as investment under management and two indicators of output as net returns on investments to the shareholders and net returns on investments to the policyholders have been used. The results depict that the technical efficiency (TE) of the public sector has been 98.6%, which is quite high as compared with the private sector whose TE has been recorded at 56.9%. Among the public sector insurers, New India has been the most efficient of all the insurers. For the second model, two inputs, i.e. capital (including reserves and surpluses) and net premium income, and one output as investment under management have been used. The results of the second model also state that the TE of the public sector has been much more, i.e. 97.3%, as compared with the private sector, i.e. 79.1%, which state that the public sector has been more efficient as compared with the private sector in terms of investment efficiency. The United India Insurance Company has been the most efficient of all the insurers according to the second model. Moreover, the improvement space of the public sector is decreasing, which is a good sign for the public sector. In order to be more operative in the coming future, the private sector should give due emphasis on the improvement of the scale efficiency along with the managerial efficiency.

**KEYWORDS:** Data envelopment analysis, Frontier, Improvement space, Technical efficiency

**JEL CLASSIFICATION:** C14, G11, G22

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## **Determination of Expected Cost of Forecast Error: A Study in Preparation Course for the ANPAD/June-2006 Brazilian Test**

Jorge Alberto Velloso Saldanha\*, Marcus Ferasso\*, Nelson Casarotto Filho\*

### **ABSTRACT:**

A major challenge for the managers in business today is to find the expected cost of forecasting error. This cost is the difference between the additional value of the perfect and imperfect information. Marketing managers make daily decisions based on market information, many of which originate from survey researches. To obtain this information generates high costs for the enterprises. Due to this fact, measuring the financial value of these perfect and imperfect information and calculating the expected cost of the prediction error is very important as a tool to assist in the decisionmaking process. In order to underline calculations of the information, a graphical representation, i.e. the decision tree, was used, and later, the problem was analysed using the Expert System Shell SPIRIT software. At the end of the paper, we discuss the results and the conclusions of this research. Methodologically, this paper is an applied research with an exploratory and a quantitative approach, classified as a bibliographical study. The paper contributes to the understanding of a tool that can assist in decision making for the managers in various organisations.

**KEYWORDS:** Engineering economics, Probabilistic expert systems, Risk analysis, Costs, Forecasting.

**JEL CLASSIFICATION:** C1 Econometric and statistical methods and methodology: general; C44 Operations research, statistical decision theory.

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