

**STRATEGIC FRAMEWORK FOR PERFORMANCE
MEASUREMENT AND MANAGEMENT:
A STUDY OF SELECT INDUSTRIES**

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**Strategic Framework for Performance Measurement
and Management:**

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by

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CERTIFICATE

This is to certify that the thesis entitled “**Strategic Framework for Performance Measurement and Management: A Study of Select Sectors**” being submitted by **Ms. Neetu Yadav** to the Indian Institute of Technology Delhi for the award of the degree of Doctor of Philosophy (Ph.D.), is a record of bona fide original research work carried out by her. She has worked under our guidance and supervision, and has fulfilled the requirements for the submission of the thesis, which has attained standard required for a Ph.D. degree of the Institute. The results presented in this thesis have not been submitted elsewhere for the award of any degree or diploma.

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“We don’t accomplish anything in this world alone”

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ABSTRACT

In the changing business environment, with increasing competition, changing customer preferences and saturated markets, the existing business models have lost their relevance at present. In this view, development of effective enterprise performance management system (PMS) is of paramount importance. Here, the relevance of this study comes into picture. Exploring the strategic aspects of performance measurement and management (PMM) in the context of Indian telecom service providers and Indian automobile manufacturing enterprises is the primary objective of the research work.

The extensive literature review of the last two decades re-iterates the fact that financial performance indicators have still their dominance in PMS but the importance of non-financial performance indicators have highly been recognized in numerous studies. After the inception of balanced scorecard (BSC), which is one of the highly cited performance management frameworks in the literature, in the last one decade enormous developments happened in this field. With the introduction of activity-based costing, EFQM excellence awards, performance prism, Kanji's business scorecard, integrated performance management framework, dynamic PMS, proactive BSC, flexible strategy game-card, the performance wheel, etc., the researchers have unveiled different aspects of enterprise performance, and emphasized that financial performance measures are lagging indicators, which depend on leading indicators as, operational and strategic performance measures. Still, the issue to be examined by contemporary researchers of PMM is about the effectiveness of PMS. There is very limited mechanism available to transform information into value-adding activities for an organization. The analysis carried out in

this study brings out this argument clearly that PMM frameworks are not well rooted in strategic thinking and thus, fail to provide effective PMS. This study has adopted “*flexible strategy game-card*” an evolving performance management framework to further investigate these issues.

This has been observed while reviewing the existing PMM studies that there is dearth of studies available investigating the PMM issues in the Indian context, which is one of the major driving forces of conducting this research work. With the rapid transformations in Indian economy, two high performing industries, i.e. telecom service representing service sector; and automobile manufacturing representing manufacturing sector have been chosen as the scope of this study.

This study has been conducted in six phases, which have been designed in eleven chapters in the thesis. After exploring the existing literature and context specific issues, the research objectives and questions have been delineated in the first phase. As already stated, it seeks to develop the strategic framework of PMM by investigating context specific as well as general performance indicators for the selected industries. This study adopts mix-method approach ranging from numerous qualitative methods to interpretive modelling methods to quantitative, case studies and systems methodologies, thus brings a methodological rigor to this study. The performance results, growth trends and the industry statistics have been studied and then exploratory study for both the industries has been conducted in the second phase of research. With the help of semi-structured interviews and focus group discussion, the financial and non-financial performance indicators have been identified and their hierarchical relationships have been established using total interpretive structural modelling (TISM).

These conceptual frameworks have been further taken for empirical validation through perceptual study with the help of opinion surveys in the research phase three. Besides this, the

organizational study has been conducted with the help of profitability ratio analysis and grouping the sample firms of telecom and automobile enterprises as high-performing, moderate performing and low performing through k-means cluster analysis. The opinion surveys sought the opinion from both enterprise and customer perspectives, and therefore the respondents of opinion survey are, senior-and-middle level executives from telecom and automobile companies, telecom subscribers, and automobile customers. The empirical analysis reveals the fact that ‘situation’, ‘actor’, and ‘process’ strategic factors are leading performance indicators, ‘performance’ strategic factors are lagging performance indicators, whereas ‘customer’s’ strategic factors interact with enterprise strategic factors as enabling performance indicators.

In the research phase four, two detailed case studies have been conducted to reinterpret the empirical findings in the real life case settings. Going beyond the re-interpretation of empirical models for the case enterprises, the case studies explore the relationships between strategic interventions and performance strategic factors with the help of illustrating the seven-step mechanism of flexible strategy game-card process. In the light of raise, maintain and reduce the strategic factors, some of the strategic interventions have been recommended for each of the case enterprises.

There is plethora of studies available highlighting the shortcomings of existing PMS, where one of the criticisms highlighted is static nature. For broadening the horizons of study from qualitative and quantitative research methods, it has gone to systems methodology to analyze the behavior of the system. In phase five, “System dynamics (SD) methodology’ has been applied in both the case contexts to capture the dynamism of the PMS. To capture the impact of some of the recommended strategic interventions, the quantitative measures of relevant performance indicators have been captured for the case studies and SD models have been

developed, which have been simulated to see the likely future results and thus, the likely effect of policy parameters have been studied for the PMS. Causal-loop diagrams, stock and flow diagrams and charts have been used to capture the system behavior and dynamics.

In the last phase, i.e. research phase six triangulation methodology for data triangulation, method triangulation and theory triangulation have been used to carry out the synthesis of the findings and results. As the PMS issues are highly context specific, an attempt is made to present generalized strategic performance management framework showcasing some generic performance indicators. Some of the research findings are: customer's view-point is inevitable in designing of effective PMS, where customers' strategic factors can be considered as 'enabling performance indicators'. The strategic interventions should be planned in the light of existing performance indicators, which should give feedback for corrective actions and development of new business plans.

The study has made contributions to the body of knowledge as well as to the management, and those have been highlighted in the last phase of study. In nutshell, this study can be considered as a cornerstone in the PMM research in the Indian context seeding the roots of integrated, dynamic, holistic, effective and strategic performance management framework.

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