ABSTRACT

Productivity growth is essential to the effective planning and execution of projects in the construction sector. At the level of an activity, trade, or project, several productivity methods have shown benefits; but, at the corporate and industry level, outcomes have been uneven and productivity increases have not been appreciable. The productivity improvement problem, which affects the whole project portfolio, is examined in this study by CII Research Team 340, Corporate Practices for Successful Productivity Improvement Programs (RT-340). The goal is to describe and evaluate corporate productivity programs, which are made up of the personnel, operational procedures, and technological infrastructure that aid in productivity enhancement initiatives inside a business. In order to achieve this, the Construction Industry Institute created the central research question addressed by this study, which was “What are the enterprise-level best practices for implementing productivity improvement programs; and what are the most significant barriers to their implementation?”

The research team made use of already-existing safety programs and lessons learned to comprehend roles, responsibilities, practices, barriers, and interfaces common to these well-established corporate programs in order to develop efficient corporate-level programs that will have an impact across the entire portfolio. A well-known program framework, such as the quantifiable actions and success principles, was supported by this foundation.
The capital projects sector has long sought to increase construction productivity. Corporate productivity initiatives are being implemented as part of efforts to enhance project and business results for a company. The question of whether these efforts have increased productivity is still open.

Prior research showed increases in productivity at the activity, trade, and project levels. At the corporate and industrial levels, however, productivity increases have not materialized due to uneven outcomes.

Businesses adopt enterprise-level programs to verify that projects are correctly managing safety in accordance with business objectives in other fields, such as construction safety. Industry safety indicators show decades of advancement as a consequence of an enterprise-level, targeted, and methodical strategy. Organizations may be able to continuously use tried-and-true methods and enhance project and construction management if a comparable approach is used for productivity. These enhancements may lead to better portfolio management, consistent project performance, and outcome assurance. The efficacy of the billions of dollars invested in building throughout the globe would benefit from this.

Enterprise/Corporate: For the sake of this study, the terms enterprise, corporate, and corporate-level are all used fairly interchangeably. Each is described as the organizational parts of a business that supervise or assist one or more initiatives across the board. The organizational structure of the company's leadership is influenced by this level more than capital projects.

Practices that have been shown to boost construction productivity are known as productivity practices. Constructability, activity analysis, instruction, and materials management are a few examples. Other research supported the idea that effective and regular use of these strategies increases construction productivity (Goodrum, 2013).

ABOUT THE COMPANY / INDUSTRY / SECTOR

INDUSTRY PROFILE

Workforce Factors

Owners and contractors are aware of how crucial a skilled staff is to performance in terms of quality, cost, schedule, safety, and efficiency. A key component of efforts to boost productivity is workforce development and training to improve competence and quality. The foundation of every company is made up of construction experts, who have a big impact on how productive the industry is. CII commissioned significant research to get a more comprehensive understanding of workforce challenges and their effects on productivity. These included RT-215, which examined how the workforce perceived labour productivity in the construction industry, and RT-330, which investigated the effect of frontline supervision in enhancing productivity and performance.
Productivity Evaluation Techniques

Measurements and analysis are necessary for productivity improvement in order to evaluate productivity, identify productivity impediments, and suggest improvement options. Both quantitative and qualitative techniques may be used to acquire productivity statistics. These methods may be grouped into:

- Activity analysis and five-minute assessment for process observation
- Process and Resource Mapping - crew balance chart, flow diagram, foreman delay survey, and interviews and surveys - craftsman questionnaire

Recent research investigated how to automate the productivity evaluation process since the majority of productivity assessment techniques depend on time-consuming manual operations. Investigated technologies included RFID tags, video cameras, and laser scanners.

Process Improvement Philosophies

Since the introduction of lean concepts and the use of methods like Six Sigma, the industrial sector has seen performance increases. The use of lean ideas may enhance product prices, capital requirements, quality, cycle times, inventory, and space requirements, according to earlier research. These principles provide a framework and a methodical approach to process improvement. Lean construction concepts have been studied by the CII, the Lean Construction Institute, and other research organizations.

OVERVIEW OF WORLD MARKET

To improve the team's comprehension of how productivity tactics are used in the construction sector and the effects of corporate productivity program actions. The information was gathered in order to characterize business productivity initiatives using the Element-Action characterisation.

Investigations were conducted into specific productivity development techniques that are being used as components of corporate programs, and obstacles to the adoption of enterprise-level productivity programs were also looked at. The orientation of the next study stages was affected by the results of this first survey.

The researchers sent out a survey asking participants to evaluate their own corporate programs in order to compare industry standards for the Corporate Productivity Program Actions. For each of the 94 Actions, participants were asked to assess how well their company performed. Individuals who participated in this self-assessment indicated to what extent they agreed that their organization has carried out enterprise-level initiatives pertaining to leadership, resources, communications, planning, monitoring, and continuous improvement to promote productivity. Most of the businesses polled
were CII members. As a result, answers mostly come from heavy industrial construction sectors' owners and contractors.

While evaluating the 94 Actions within the program Elements providing context for the Actions level of execution, participants were requested to concentrate on corporate level commitment. They indicated the "Level of Agreement" with each productivity development program Action's corporate-level success at their organization.

OVERVIEW OF INDIAN MARKET

A key component of effective project planning and execution is productivity enhancement within the construction sector. At the activity, trade, and project levels, several productivity approaches have shown gains. Results, however, have been erratic, and industry-wide productivity increases have not been appreciable. This study examines the problem of productivity enhancement from a corporate standpoint, which affects the whole project portfolio. The goal is to define and evaluate corporate productivity programs, which are made up of the people, procedures, and tools that assist a business in enhancing its productivity.

According to research, a corporate-level program may provide a methodical and uniform way to choosing and putting productivity measures into effect. Beyond the level and breadth of a project, the Corporate Productivity Program may assist with managing internal and external productivity interfaces. Because it exists before and after certain initiatives, this is effective at the corporate level. Long-term relationships and ambitions may therefore be better managed in order to achieve corporate and portfolio objectives.

The study team made use of already-existing safety programs and lessons gained to identify roles, responsibilities, and interface management typical across corporate programs in its quest of a workable corporate-level approach to have portfolio-wide effect. Then, techniques and practices for increasing productivity were incorporated with an emphasis on the construction industry. Through research methods such as surveys, interviews, and consultation with subject matter experts, these elements were evolved into the Corporate Productivity Program.
and adapted via the Implementation Framework.

ABOUT MAJOR COMPANIES IN THE INDUSTRY

The concerned firm sometimes operated in more than one of these industries. The majority of the participants held corporate roles and had between 10 and 30 years of project and operations management and coordination experience.

In order to perform a more thorough analysis of the subtle effects of various business productivity program deployments, the researchers wanted to throughout that time. In order to have a thorough grasp of how corporate productivity improvement initiatives are set up, managed, monitored, and integrated into the larger company, these targeted both business and project management specialists.

Potential variations depending on organization size and industry were taken into account throughout the thorough review of the firms' plans. The interviews also covered the obstacles to corporate productivity program practices and the methods used by businesses to get rid of or reduce them. By assisting the research team in better understanding how mitigations are launched and carried out across organizations, projects, and corporate interfaces, these insights aided the study approach's later stages.

The quantifiable Corporate Productivity Programs Actions were found to be suitable and successful. The evaluation of these actions enabled the company's commitment to its program to be confirmed as either well-established and mature or inconsistent and mostly. The study evaluated the extent to which productivity methods were being used in the sector. It shown that different companies apply productivity techniques in different ways. It also made it easier to comprehend the extent to which corporate productivity initiatives are involved in the adoption of productivity techniques.

PRODUCT PROFILE

Programs for Increasing Corporate Productivity (Best Practices)

The definition of corporate productivity programs was based on the models that had been effective for other enterprise-level initiatives like safety and lessons learned. This foundation supported a well-known program framework, such as the success principles and quantifiable activities. The Corporate Productivity Program's components were created.

with suggestions from authorities in the field. The six elements of leadership, resources, structure and communication, planning for productivity, productivity monitoring and control, and continuous improvement were defined as the basis for alignment.
Based on a literature analysis, subject matter expert interviews, and research team assessments, RT-340 selected more than 100 Actions as the best corporate practices for productivity development projects. The term "actions" refers to quantifiable enterprise-level best practices of Corporate Productivity Programs that support effective program management and the adoption of productivity principles throughout business project portfolios.

These actions include a wide range of business-related activities, including setting goals and objectives to direct firm efforts, carrying out project management procedures, and using metrics for ongoing development.

Using the six Elements, the SMEs grouped the 94 Actions into program-shaping segments—groups of program Actions that review related areas and responsibilities of Corporate Productivity Programs for program management and improvement evaluation—after eliminating duplicate Actions. Each Element group gives its underlying Actions context, and the groups break each program's content into digestible chunks of 11 to 21 Actions.

4. INTRODUCTION OF THE STUDY

Leadership

A key component of well-established business initiatives is leadership. The three main actions that leaders should do to improve corporate productivity are to concentrate attention, ensure responsibility, and align stakeholders (Ellis, 2008). Leadership of productivity programs sets goals, objectives, consistency, culture development, and stakeholder alignment, much as leadership of safety programs (CII, 2003). The research's activities concentrate on corporate leadership's goals for productivity, accountability, and leadership-driven commitment (Ellis, 2008).

Leadership Initiatives

L 1. Promote a culture of production.
L 2. Describe the measures for productivity.
L 3. Set objectives for productivity.
L 4. Ensure that productivity targets align with corporate goals.
L 5. Align corporate management with productivity objectives.
L 6. Distribute productivity plans for support and criticism.
L 7. Assume responsibility for enhancing production.
L 8. Demonstrate dedication to productivity objectives.
L 9. Consistently communicate your productivity objectives.
L 11. Encourage the use of productivity techniques across the project portfolio.
L 12. Name business leaders who may influence practice usage.
L 13. Make company resources available to facilitate the use of productivity principles in projects.

L 14. Align project managers’ objectives for productivity.

L 15. Honor project-level productivity victories.

4.1 LITERATURE REVIEW

S. Aradhya1, S.P. Kaluka 2, and others (2018), Currently, lean ideas serve as problem-solving tools for businesses who are having trouble turning a profit. Industries place the most emphasis on waste reduction, which enables them to produce goods for the end customer with less expenditure. Simply in Time is another method that specializes in offering advice to companies so they may achieve the minimal inventory criteria. Kanban may also be a variety of JIT techniques that were developed to optimize raw material supply and inventory levels across production cells. In order to improve profit, this strategy is used to raise productivity in many businesses.

Vipul Kumar. According to C. Patel, Dr. Hemant Thakkar2, and colleagues, all business operations are more efficient when 5S methods and techniques are used. The adoption of the 5S system and the cessation of business losses are emphasized. The introduction of the 5S standards often results in more significant changes for the company, for instance: technique improvement by costs? reduction, a boost in process effectiveness and efficiency, equipment maintenance and improvement? effectiveness, security, safety, quality, and a decrease in business pollution. Every company often employs this strategy. The office space is effectively organized as a consequence.

OBJECTIVES OF THE STUDY

➢ The main goal of productivity improvement programs is to integrate the development of an efficient productivity measuring system with the human job of enhancing organizational performance by adjustments to one or more organizational components, such as the people, structure, or culture.

➢ An economy may create and consume more products and services for the same amount of effort when productivity is growing.

➢ Individuals (workers and customers), corporate executives, and analysts value productivity (such as policymakers and government statisticians).
RESEARCH METHODOLOGY

METHODS FOR DATA COLLECTION & VARIABLES OF THE STUDY

Methods for data collection

Primary Information

Secondary Information

Primary Information

A questionnaire was used to collect primary data.

Secondary Information

Secondary data was gathered from Books Journals Magazines Web's logistics es Sampling

The sampling approach used for data collection is convenient sampling. The convenience sampling technique is a non-probability approach.

Sample size

The number of individuals to be polled is indicated by logistics. Although big samples provide more trustworthy findings than small samples, owing to time and financial constraints,

Analytical strategy

- Graphs and charts are used to depict diagrams.
- Following the use of the relevant statistical methods, logistical conclusions will be formed.
- Findings and recommendations will be provided to make the research more helpful.

CONCLUSION/SUGGESTIONS

A framework for describing, evaluating, and enhancing an enterprise-level productivity improvement program was developed as a result of the research. Additionally, the study showed that when implemented successfully by the program, the Actions (i.e., corporate best practices) identified in the research had a favorable link with the use of practices that are known to increase productivity performance.

Six program elements — leadership, resources, structure and communications, planning for productivity, productivity monitoring and control, and continuous improvement — served as the foundation for the development of the implementation framework for corporate productivity program characterization and assessment. The success of an enterprise-level program depends on these Elements, which also comprise the Actions. 94 Actions were recognized as essential to the program's success when refining the program characterisation. The corporate productivity program's quantifiable components are provided by these actions. These Elements and Actions served as the foundation for the evaluation technique and report development.
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