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PROJECT MANAGEMENT LITERATURE:  
GAPS AND OPPORTUNITIES.

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# Abstract

- This paper provides a review of the literature on project management practices and presents a comprehensive bibliography and a classification under the PMBOK Guide framework. 130 articles on project management published in the Project Management Journal between 1997 and 2011 are analyzed and classified into nine knowledge areas and five process groups. The findings of this review clearly show that project planning is the most popular research process group and project initiation and closure are the neglected research topics.

# Introduction (1)

- The technological advancements and the accelerated global change in the marketplace have created enormous strains on existing organizational forms.
- Companies have realized that project management can take a leading role in facilitating and enabling the changes involved (Koskela and Howell, 2002).
- Project management refers to the application of knowledge, skills, tools and techniques to project activities to meet a relatively short-term objective that has been established to complete specific goals and objectives (PMI, 2008). It is accomplished through the planning, organizing, directing, and controlling of company resources (Kerzner, 2009).
- Today, the concept of project management has been increasingly applied in diverse industries and organizations (Kerzner, 2009; Packendorff, 1995).

# Introduction (2)

- Project management has become a scientific field with its own professional associations, the Project Management Institute (PMI) and the International Project Management Association (IPMA). These associations are known as promoters of the standardization of project management and certification programs for project managers (Soderlund, 2004).
- *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*, published by PMI, presents a set of standard terminology and guidelines for project management. The PMBOK Guide is process-based, describing project management as being accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling, and closing.

# Objectives

1. Provide a critical investigation of the present body of knowledge in project management practices. Research articles from the major project management journal will be analyzed.
2. Propose an alternative research agenda concerning currently neglected topics, theories and research methods.

# Research Question

- The research question addressed in this essay is:

What literature gaps exist in project management research that is based on the PMBOK framework?

# Methodology

- A detailed content search in *Project Management Journal*, which is one of the most important academic journals in project management field.
- Through the online scholarly database -- Business Source Complete, 704 articles published between 1997 and 2011 are collected.
- To be included in the sample, an article has to
  - (1) study project management practices
  - (2) address one or more project management processes or knowledge areas.
- Finally, 130 articles are identified and they are summarized in Table 1

Table 1:  
Studies on Project Management Practices



# Classification Framework

- A conceptual classification framework is adapted from the PMBOK Guide for the available literature on research of project management (see Table 2).
- The classification framework consists of two dimensions:
  1. The first comprising the five basic project management process groups
  2. The second comprising the nine typical project management knowledge areas.

Table 2:  
Conceptual Framework For Classifying The  
Project Management Research (Adapted From  
The PMBOK Guide)

# Analysis of Project Management Research (1)

- The distribution of the 130 articles is classified into the proposed classification framework (see Table 3).
- Table 3 identifies and lists the project management practices by the knowledge area categories and process groups.
- Some of the selected articles in the review address more than one project management processes, thus we categorize these studies to each process they address and regard them as separate studies as we do the analysis.

Table 3:  
Research on Project Management Practices

# Analysis of Project Management Research (2)

- The following subsections present further analysis of the existed project management research:
  - Distribution by Year
  - Distribution by Research Method
  - Distribution by Project Management Knowledge Areas
  - Distribution by Project Process Groups

# Distribution of Studies by Year

- Table 4 shows the distribution of studies by publication year.
- It can be seen from this table that research studies on project management practices are distributed evenly in each year.
- Comparing to the total number of articles published in each year, the amount of studies on project management practices is little.
- In the recent 15 years, only 18% (130/704) of the published articles are identified as research on project management practices.

Table 4:  
Distribution of Studies By Year

# Distribution of Articles by Research Method

- Table 5 presents the distribution of the articles by the research methods which they use.
- The selected articles are classified into three categories according to their applied research methods: theoretical research, empirical research, and literature review.
- From the distribution, we can see that most studies are empirical studies (54.6%)
- Literature review is the least applied research method (5.4%) in the project management practice research.



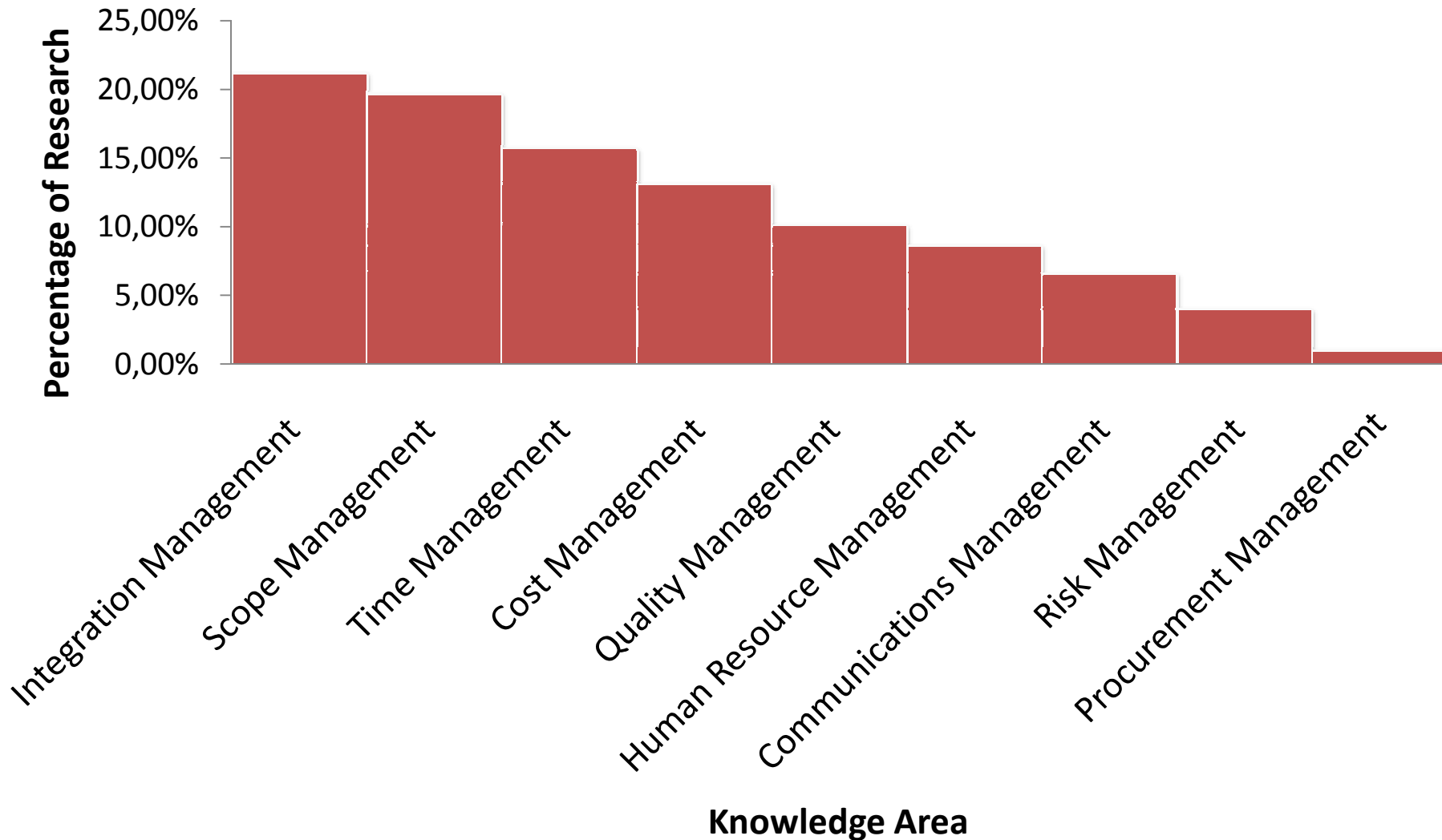
Table 5:  
Distribution of Articles By Research Method

# Distribution of Studies by Project Management Knowledge Areas

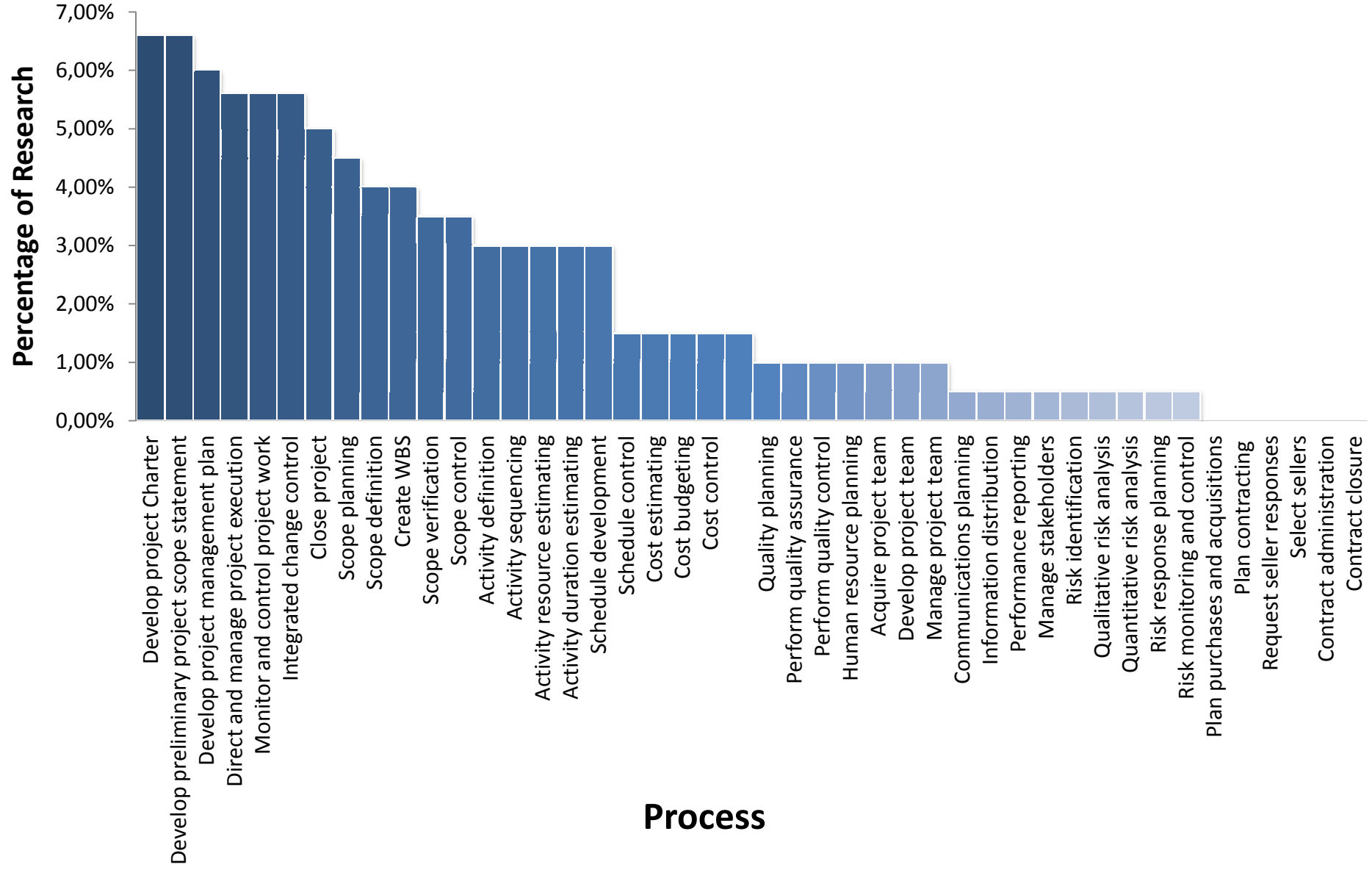
- Table 6 shows that the focus of project management practice research is on the knowledge area of time management (42 or 21.2%), followed by risk management (39 or 19.7%) and integration management (31 or 15.7%).
- Human resource management (26 or 13.1%), communications management (20 or 10.1%), and cost management (17 or 8.6%) have gotten moderate attention.
- Less interest has been addressed in the knowledge areas of procurement management (13 or 6.6%), quality management (8 or 4%), and scope management (2 or 1%).

Table 6:  
Distribution of Studies by Project Management  
Knowledge Areas

## Distribution of Studies by Project Management Knowledge Areas



# Distribution of Studies by Process



# Distribution of Studies by Project Process Groups

- Planning is the most researched group, being studied in 53.5% followed by monitoring and controlling group, studied in 32.2% and then the executing group, studied in 12.6%.
- Initiating group and closing group are seldom studied.

Table 7:  
Distribution of Studies by Project Process Groups

# Conclusions (1)

- More empirical studies have been conducted in the research on project management practices than theoretical studies.
- Of the nine knowledge areas, time management, risk management and integration management has attracted the greatest attention from researchers. Meanwhile, there are few studies on scope management, quality management and procurement management knowledge areas. As each knowledge area is important to project success, it is worth studying issues in all the knowledge areas, especially in areas that have been little studied. More research is encouraged in scope management and quality management areas, which are very critical to project management practitioners.



# Conclusions (2)

- Of the five process groups, initiating group and closing group are little studied as these processes are often neglected by project management practitioners. Planning is the most popular group, while monitoring and controlling group also gains much attention. Compared to the planning group and the controlling group, the executing group has not gained enough attention from researchers. More effort is encouraged to be dedicated to the executing processes.
- Overall, “schedule development” process in time management is the most studied project management process. It is obvious that scheduling is a subject of major concern for both academics and practitioners. “Manage project team” , “risk identification”, “monitor and control project work”, “develop project management plan”, “develop project team”, and “manage stakeholders” processes are also popular research topics. However, other processes such as “develop preliminary project scope statement”, “direct and manage project execution”, “scope definition”, “scope verification”, and “scope control” have not been studied. Further research can be extended to all these project management processes.

# Conclusions(3)

- Project management has been increasingly applied in diverse industries and organizations (Kerzner, 2009; Packendorff, 1995).
- Companies have realized that project management can take a leading role in facilitating and enabling the changes involved (Koskela and Howell, 2002).
- Project management practices are critical to practitioners and organizations, more research is encouraged to be done in this field.