

Conceptualising Project Portfolio Management in terms of Organisational State-Transition Approach

Hamed Sarbazhosseini

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In the name of God

به نام خداوند جان و خرد

Abstract

Interest in Project Portfolio Management (PPM) has significantly increased in recent years amongst academics and practitioners. Project Portfolio Management is a dynamic decision-making process in which new projects and/or programs are evaluated, selected and prioritised and resources are allocated to achieve strategic goals. PPM was initially considered in fields such as financial sectors and later in research and development, new product development and information technology. PPM has a strong research base in areas such as methods, tools, processes and mathematical formulas. PPM has been identified as a regime that manages multiple projects simultaneously and enhances organisations in order to achieve their strategic goals.

However, there seems to be limited theory that clarifies what PPM is or how it should be conceived and equally limited methodological tools for its examination. Given the complex nature of context of PPM, this research was motivated to clarify and conceptualise its meaning. The aim was to provide a structure to PPM and to simplify PPM theory.

The State-Transition Approach is a well-established and reliable approach to conceptualising dynamic systems. In this thesis, an 'Organisational State-Transition Approach' (OSTA) is developed and deployed as a means for studying the domain. OSTA has been used in this study to conceptualise PPM literature, collate data and provide analyses. Five Australian government agencies and two industry cases were selected to participate in the research through interview and document review processes. These data have been analysed in terms of OSTA, including state indicators, transition actions, desired states or goals and organisational learning, to understand PPM in practice.

Findings of the study are important in better understanding the complexities of PPM. The research found new criteria, states and goals which were not detected previously in PPM literature. Gaps in understanding the relationships between actions and desired state of organisation system were exposed. The lack of effective tools for instantiating many PPM concepts are revealed. This research study provided a greater understanding of PPM introduces a new method for its exploration and opens the door for both academics and practitioners to further research and deploy PPM.

***This thesis is dedicated to my beloved
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brother Seyed Hadi Sarbazhosseini,
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List of Abbreviations

<u>Abbreviation</u>	<u>Description</u>
BI	Business Intelligence
CIO	Chief Information Officer
ICT	Information and Communication Technologies
IS	Information Systems
IT	Information Technology
KPI	Key Performance Indicators
Matlab	A high-level language and interactive environment for numerical computation, visualization, and programming
MIS	Management Information Systems
MSP	Managing Successful Projects
OGC	Office of Government Commerce
OO	Object-Oriented
OSTA	Organisational State-Transition Approach
PM	Project Management
PMO	Portfolio Management Office
PPM	Project Portfolio Management
P3M3	Portfolio, Program, Project Management Maturity Models
Prince2	A project management methodology
PrgM	Program Management
ROI	Return on Investments
SAP	A software application to manage business operations
SPS	A project management methodology
STA	State-Transition Approach
STM	State-Transition Model
Suppliers	Software Companies
TQM	Total Quality Management
UML	Unified Modelling Language
Vendors	Software Companies