A Novel Framework for Identification of Critical Business Processes

Yousuf AlBlooshi, Amin Hosseinian-Far

University of Northampton, Northampton, UK

yousuf.halblooshi15@my.northampton.ac.uk

Amin.Hosseinian-Far@northampton.ac.uk

1. Introduction

- Business processes are important to the sustainability of any business as they involve determining the overall functionality and pertinent issues,

- Critical Business Processes (CBPs) are processes that are crucial to the financial stability and operations of an organization,

- Identification of CBP is essential for business continuity and is a necessary step to comply with national and international regulations and standards.

2. Motivation and Background

- Current standards (e.g., ISO ISO/IEC 27001) provide only high-level guidance to organisations and depend directly on input from independent business units:
  - The input is typically subjective: Business Units may report different sets of priorities and goals and have incomplete and incompatible understandings of their peers' tasks and goals,
  - Due to the lack of a systematic mechanism in tackling these discrepancies within the current standards, different units may report conflicting requirements resulted from unforeseen inter-dependencies between their tasks, rendering the final CBP self-contradictory.

- We propose to develop a novel framework of CBP identification that can be used by any organization using Design Science Research (DSR) as our methodology,

3. Major Contributions

- The framework will provide a clear guideline to the responsible managers for implementing business continuity (which is entirely dependent on CBP identification), without seeking external support,

- It will provide a mechanism for conflict resolution in CBP, reported by different business units, with minimum effort.

4. Methodology

- Our research philosophy is based on inductive reasoning that proceeds from field observation, data collection, and interviews, and progresses towards a generalisation of a novel framework for CBP identification that applies to any organization,

- To achieve that, we rely on a DSR methodology (Peffers, 2007) that iteratively refines the results until we obtain a general framework applicable to any organization.
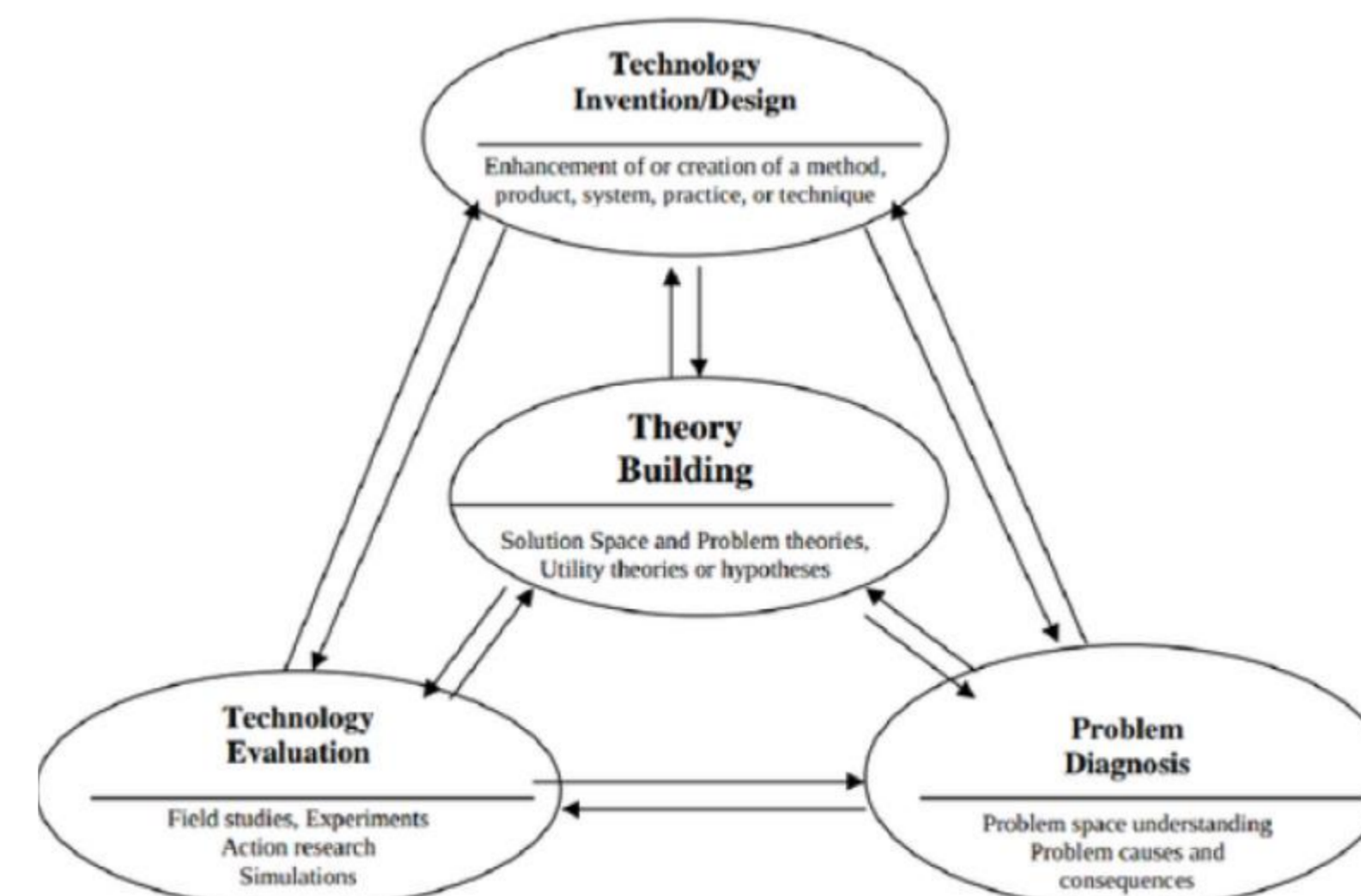
5. Experimental Design

- Our study will rely on data obtained from the employees at key positions representing all business units of Global Aerospace Logistics (GAL), a large organisation with 3000 employees located in United Arab Emirates (UAE):
  - We will take data directly from the whole population representing 12 business divisions, and 28 subdivisions,
  - A structured interview will be used to collect primary data. The interviews will be guided by a set of open-ended questions,
  - The goal is to obtain raw CBP from different business units.
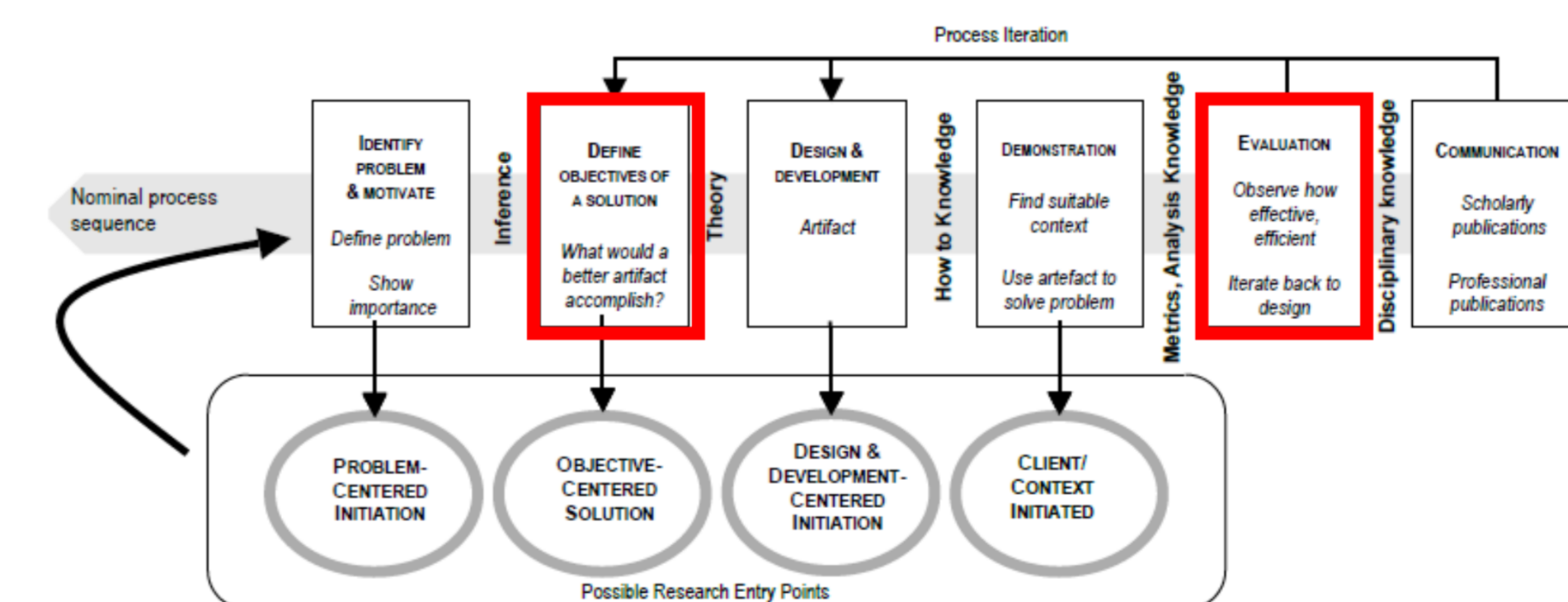
6. Expected Results

- We expect to develop a new framework of conflict-free CBP identification that can be applicable to any organisation,

- The work will entail an investigation into automated CBP identification using theories such as kernel and Design theories.

7. Discussion

- The framework will be utilised in obtaining conflict-free CBPs for GAL, as a case study, as well as any organisation willing to improve their business processes.

- This will assist professionals to plan for business continuity (which is also a necessary step for certification, e.g., ISO/IEC 22301, 27001) with much less time and effort.

- The final product will be a design theory supported with a novel software, utilizing the framework that can assist decision makers and managers to easily identify CBPs.

8. Conclusions

- CBPs are processes that are crucial to the financial stability and operations of an organization.

- We propose the adoption of DSR methodology to systematically and scientifically develop a framework for identification of CBP applied to a real case study.

- The interdisciplinary nature of this work can motivate future research in this area and push the boundary between human and machine interaction in key strategic decisions for organisations.

9. Future Work

- An investigation into automatic CBP identification using probabilistic techniques,

- Development of a functional automatic tool which could reliably identify CBPs with a reasonable computational time.