# СЕКЦІЯ 3. ІНФОРМАЦІЙНІ СИСТЕМИ ТА ТЕХНОЛОГІЇ

## CULTURAL CHALLENGES IN APAC ERP PROJECT IMPLEMENTATIONS. A SYSTEMATIC REVIEW

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### *Introduction*

An ERP is an information system that manages, through integration, all aspects of a business including manufacturing and production planning, warehouse management, purchasing and procurement, sales and distribution, Finance & Accounting, Asset management, service management, CRM, and BI (Sheu, 2003). According to the main ERP vendors such as SAP (2022), Oracle (2022) and IFS (2022), ERP is a software system that helps you run your entire business, supporting automation and processes.

Many researchers (Avison & Torksadeh, 2013), (King et al, 2008), (Beach & Coule, 2016) reviled the complexities & challenges of project implementations. CISCO & Gartner (2018) published 60% to 70% of projects fail every year. Obviously "how and what helps you to avoid being in the majority?" is the researcher's problem. Further, Gartner (2018)

claimed that this has not been properly researched and mitigated. The project failed because the Project Initiation Documents (PID) were poorly studied/researched/written or the client never bought its business into the project (CISCO & Gartner, 2018).

Additionally, Avison & Torksadeh (2013) refer to King et al. (2008) provide a balanced view of cultural issues. Avison & Torksadeh (2013) noted that cultural differences tend to disrupt project implementation. Beach & Coule (2016) explored cultural challenges in pre-launch projects. Socio-political issues are therefore largely ignored in current theorising.

Sheu (2003) pointed out that ERP implementation issues were studied by other researchers (Kumar & Bendoly, 2003), (Bensson & Rowe , 2001), Ross & Vitale, 200), but none of the research highlighted cultural issues and national differences in those studies.

The authors argue that the topic of cultural issues should be well read and properly addressed in order to gain concrete knowledge and awareness that can build a theoretical and conceptual framework for ERP cultural studies.

### *Methodology*

The reporting of this systematic literature review was done in line with the "Preferred Reporting Items for Systematic Review and Meta-Analysis" (PRISMA- 2020 statement) guidelines (Liberati et al, 2009) ; (PRISMA-2020) and has been registered in the PROSPERO database as CRD42021243116.

This review was conducted using the PRISMA 2020 model. Based on the purpose of this study, we first created a research question. A search strategy was then defined to identify conducted studies that could be used to answer research questions. In this phase, inclusion and exclusion criteria were defined. Study selection criteria are defined, as a third step, to identify studies aimed at answering the formulation and synthesis. In the fourth stage, we defined data extraction and synthesis describing the use of collected research analysis to provide answers to research questions. As a final step in the review process, we identified mechanisms for reducing threats and biases to review validity, as well as other factors that may have influenced the results of this study.

This systematic review aims to answer the following research questions.

RQ1: What are the previous studies on cultural influences at ERP project stages?

RQ2: What are the types of cultural challenges and influences for project conflicts?

RQ3: What are the mitigation factors proposed by previous research?

A search strategy includes an overview of the most relevant sources and search terms. This overview used several major research repositories as primary sources to identify literature and develop concepts. They were IEEEXplore Digital Library, Google Scholar, Research Gate and Science Direct.

All stages of this study were conducted by the PRISMA-2020 criteria (Liberati, 2009). From the top academic databases, a total of 502 research papers which were published after the year 2000 were inspected to ascertain the include ten (10) publications using the PRISMA dataflow diagram (Liberati, 2009). The conceptual model has been developed.

### Findings

A total of ten (10) studies were included in the systematic review. The Data Flow Diagram (DFD) is presented in figure 1. The most-reported cultural challenge is "behavioural / beliefs".
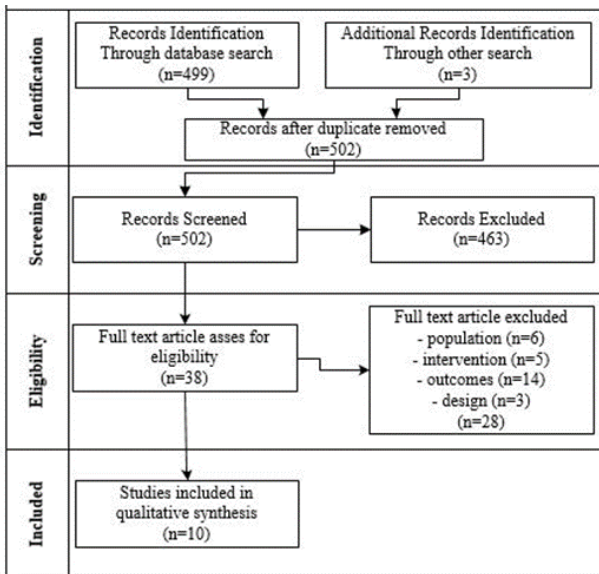


**Figure 1. PRISMA 2020 Flow Diagram: Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) flow diagram**

We summarised the result of cultural challenges into *table 1*. This tool allows us to create a more exact list when it comes to ERP project conflict management, which we wouldn't be able to achieve without it.

Table 1

| # | Research | Cultural Challenges | Types / Categories | Project Stage/stages |
|---|---|---|---|---|
| 1.0 | Sheu et al (2003) | 1.1 Culture & Language<br>1.2 Government / Corporate politics<br>1.3 Management Style<br>1.4 Government Regulations<br>1.5 Time zone<br>1.6 Labour Skills | | All or not mentioned |
| 2.0 | Ein-Dor et al | 2.1 Socio-psychological<br>2.2 Economics<br>2.3 Demographic | | All or not mentioned |
| 3.0 | St John et al (2010) | 3.1 Behavioural Belief<br>3.2 Outcome Evaluation<br>3.3 Normative Beliefs<br>3.4 Motivation to Comply<br>3.5 Control Beliefs<br>3.6 Power Beliefs | 3.1 + 3.2 = Attitude<br>3.3 + 3.4 = Subjective Norm<br>3.5 + 3.6 = Perceived Behavioural Control | All or not mentioned |
| 4.0 | Mashiah (2016) | 4.1 Attitudes<br>4.2 Behaviour<br>4.3 Characteristics<br>4.4 Decision-making<br>4.5 Direction<br>4.6 Perception<br>4.7 Motivation<br>4.8 Morals / Ethics<br>4.9 Spirituality | 4.1 + 4.2 + 4.3 = Acting<br>4.4 + 4.5 + 4.6 = Thinking<br>4.7 + 4.8 + 4.9 = Freeling | All or not mentioned |
| 5.0 | Avison & Torkzadeh (2013) | 5.1 Collective Mindfulness / Continuous Learning<br>5.2 Clan Control<br>5.3 Different societal and organisational cultures<br>5.4 Strategic Alignment<br>5.5 Rule-bending / Rule breaking<br>5.6 Strategic management and planning<br>5.7 Influence of supervisors / Performance evaluation schemes / Intrinsic motivation / Perceived usefulness | | All or not mentioned |

| # | Research | Cultural Challenges | Types / Categories | Project Stage/stages |
|---|---|---|---|---|
| 6.0 | Beach & Coule (2016) | 6.1 Soft Skills<br>6.2 Resistance to change<br>6.3 Change Management<br>6.4 Conflict of interest<br>6.5 Behaviour difference | | Pre-initiation |
| 7.0 | Sommer (2002) | until the Last Minutes People Issues<br>7.1 Job Security related<br>7.2 Workplace reorganisation<br>7.3 Policy and regulatory changes<br>7.4 ERP adaptation | Four key principles that can delay the project deployment or derail ERP implementation:<br>7.5 Uniqueness Principle<br>7.6 Buy-in but don't commit Principle<br>7.7 Focus on the Data Principle<br>7.8 Don't make a decision | All |

## *Conclusion*

This study attempted to fill the gap that exists in ERP Project Management. The literature demonstrated a lack of theoretical pieces of evidence for the identification of various cultural challenges in ERP projects at respective project stages. To the best of my knowledge, this is the first systematic review in APAC that aimed to provide a complete overview of the cultural implications of ERP project stakeholders and project stages.

The results of this research support the proposed relationship in the conceptual model. During this systematic review, the researcher found inconsistencies in the list of cultural challenges and categories. There was little evidence on the definition of criteria when categorising cultural challenges in ERP project stages.

A gap in the cultural challenges has been identified in the literature. The researcher has planned to analyse the existing cultural challenges and reconcile the respective project stages.

Further investigation is required to understand how to mitigate and the best methods to control the project life cycle. In this stage, it should be highly beneficial for the author to use identified protocols to proceed with the research conflict management studies. Accordingly, this analysis

provides a useful in-depth understanding of project cultural challenges, especially concerning conflict management and risk aversion environments.

### Limitations

None of the reviewed studies could be rated as having a systematic review process or following PRISMA statements or guidelines. This expressed the need for a new study and design. Further, only studies in English were included, also resulting in a potential bias. A more open search may have identified more studies, giving a wider range of results. The present terms were, however, considered relevant according to the objectives. This research and its result are based on the APAC region. The test environment is also related to APAC. How one APAC region varies from another region is not considered in this research.

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