ISSN: 2633-4828 Vol. 2 No.1, June, 2020

International Journal of Applied Engineering & Technology

WHY FINANCE TRANSFORMATIONS FAIL AND HOW TO REDUCE BUSINESS RISK

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ABSTRACT

Finance transformation projects transform the way the business operates, it optimizes the business processes, technology by switching from old obsolete technologies to a well-defined modern enterprise resource planning system. The transformation projects are high cost and most of the time the projects exceed the budgeted cost, schedule or does not meet the business objectives. This paper gives an overview of the literature covering the enterprise resource planning implementation and risks associated with it. The paper categorizes the failure reasons as technical, schedule, operational, business and organizational. It introduces a straightforward quantitative technique to rate and rank the risk factors using probability and impact valuation. It also introduces a framework which bridges the gap between risk assessment, implementation strategy, governance, and benefit realization. The core finding is that finance transformations fail not due to the software issues but due to the negligence of organizations to assess the organizational readiness, change management requirements, and post implementation support. The paper ends with the recommendations on how the risks can be mitigated for large finance transformation projects.

Keywords: *finance transformation, risk management, enterprise resource planning, change management, benefit realization, implementation failure.*

1. INTRODUCTION

Major organizations redesign their finance functions to adapt to modern realities and real time data needs. They embark on large ERP implementations to finetune their business processes. As part of the transformation, they engage with third party system integration partners to implement the new system. Sometimes they also wok with third parties to carry out their regular day to day transactions (business process outsourcing). These programs are referred to finance transformation programs. They come with high cost but provides quick reporting, better data (near to real-time) and aids decision making.

Even with careful consideration, several finance transformation programs fail to deliver the expected outcome. Few of them, run over budget. Other few require a considerable amount of duration more than the planned project duration. Some others provide a system with bad data that are reflection of poor data migration from legacy systems. In some cases, the implementation projects fail and organizations are forced to go back to the old systems.

In this paper, the researcher explores the reasons why these failures occur and how organizations can mitigate the risk of failures. The article has reviewed the published studies on the ERP implementations, risk assessment, change management, outsourcing, and benefits realizations. It employs the results of those studies to develop a simple scoring system on risk and a risk reduction model. This framework is not subject to any further testing in the paper with new data. It constructs the framework basing on patterns that have been reported in numerous previous research findings.

2. LITERATURE REVIEW

2.1 Resources capability

Badewi et al. (2017) analysed twelve organizations and assessed the benefits of enterprise resource planning and confirmed their results with eight consultants. Their contribution reveals that it is not software that can bring benefits. Organizations require both the system resources (software features and internal technology skills) and organizational resources (practices, culture, and staff skills). The research determined that organizations wishing

to gain advanced innovation gain without prioritizing the basic planning and automation end up wasting time and efforts.

2.2 Change management and risk

Misra et al. (2017) conducted a study of the interaction of business process reengineering with change management during ERP adoption. They argue that most change models focus on what is changing rather than why change is required and how it will impact the organization. To capture the early-stage change requirements and trace the associated risks, they employed an actor dependency approach. Their approach treats risk management as a continuous process directly to the underlying causes of organizational change, rather than the mechanics of the implementing the change.

2.3 Probabilistic risk modeling

Zeng and Skibniewski (2012) have suggested fault tree analysis for risk assessment process. Their approach provides the connection between certain elements of the enterprise resource planning system and certain risk events. The classic risk management tools mostly address budget and time frame risks. But the fault tree method concentrates on future system failure after the project implementation. This approach allows determining the root cause for functional failure, and helps understand how one failure impacts the entire program.

2.4 Implementation strategy

O'Leary (2000) compared two popular approaches of ERP implementation phased or roll outs and big bang. Big bang approach involves implementing ERP across the breadth and length of the organization at the same time for the entire organization. The cutover from legacy to new ERP requires multiple rounds of testing and careful consideration. Phased approach is where the ERP is implemented in gradual manner, either based on geography or based on line of business. One part of Organization continues to embrace ERP and at the same time the other part still runs on the old system. The old system is gradually replaced with ERP in different phases or rollouts. O'Leary demonstrated the size of the organization; the scope of the project and organizational structure can influence whether the particular decision is appropriate. There are no significant differences in either approach, each approach has its own risks.

The model created by Rodriguez et al. (2019) defines four stages of ERP implementations: Preparation and Training, Transition, Performance and Usefulness, and Maintenance. Based on their case analysis of four organizations they suggested matching the business process to the ERP in the preparation stage and developing training strategy is critical. They also highlighted the importance of a gradual process transitions, and collaboration of an internal support team and external vendors during maintenance is key to the success. Their model concludes that transition stage is where most of the risk is seen, because that is when organization starts to use the new system for day-to-day operations.

2.5 Governance and outsourcing

Vitasek et al. (2012) highlighted the large-scale finance transformation where the services were outsourced to third party service provider rather than finance transformation. In 2007, Microsoft entered into an agreement with Accenture, to outsource their finance back-office functions of the company across ninety-five countries. The parties subsequently renewed and expanded the contract based on shared incentive model where engagement fees is determined by the performance with either party could lose or gain based on their performance as opposed to traditional fee structure. This case illustrates that, in large transformation project the structure of governance and incentives can be as important as the technology platform.

2.6 Structured risk hierarchies

Dey et al. (2011) proposed a risk assessment framework which is based on a case study of a large energy service provider in the United Kingdom. They developed four levels of risk structure that includes external engagement, program management, work stream and work package thematic activities. Under each of these levels, risks are categorized in to five groups: technical, schedule, operational, business and organizational factor. This hierarchical approach allows an organization to categorize risk in correct group and track the risk impacts for the

entire program. This approach supports ongoing management of risks instead of a single point in risk assessment during the beginning of the project.

2.7 Success factors

Ram et al. (2013) examined implementations across 217 organizations and highlighted that implementation success and post implementation performance improvement are not one and the same. Their model indicates the critical success factors for ERP implementations influence implementation success and not subsequent performance gains. There are other factors that influence performance gains. They also demonstrate that successful implementation is an intermediary between critical success factors and subsequent performance improvement. In other words, a factor may affect performance indirectly through the quality of its implementation.

Teittinen et al. (2012) conducted research in an organization one year after the ERP go-live. The management expected the ERP to support them with strategic decision making but the ERP helped on better financial accounting controls. At operational level, employees encountered significant challenges in learning how to use the system effectively.

2.8 Knowledge management and sustainability

Jayawickrama et al. (2013) suggested a knowledge management competence model in the ERP implementation, which includes creation, transfer, retention and reuse of knowledge gained throughout the project life cycle. The research was conducted with service providers firms and they discovered that knowledge regarding the software package and business processes are most important ones required for effective implementation.

The Delphi expert survey was conducted by Huang et al. (2019) analysed critical success factors in the ERP implementation for sustainable firms in Taiwan. Their research concludes there are multiple success factors consulting team members, system users, organization structure, top management support, clearly defined business processes, internal control, stand operating procedures to name a few.

2.9 Financial and market effects

Galy and Sauceda (2014 examined the relationship between the company financial performance and post ERP implementation practices. They found strong relationships with external experts and consultants were positively associated with earnings and return on investments (ROI). They also noticed information shared across different departments leads to increase in net income and ROI. Top management support directly impacts net revenue and net income. Interestingly, long range ERP planning showed a negative relationship with earnings.

Ajit et al. (2014) researched stock market responses to enterprise resource planning implementation announcements among United States firms. Their findings indicate that the market generally responds favourably to ERP implementation announcements. and investors perceive the ERP investments as positive and will increase organizational value.

Gordon and Dyer (2014) studied the importance of general ledger design in SAP ERP implementations. They claimed that not understanding the role of general ledger can result in implementation failure or technically successful but still can lead to poor financial reporting, they suggested General ledger is fundamental to integrate other business processes and provided six implementation rules based on examples and industry experience.

Anaya (2019) examined the application of benefits management practices during enterprise resource planning implementation. Their findings indicate that implementing an ERP system does not automatically ensure that the organization realizes the expected benefits. The research suggests that benefit realization is ongoing process and not day one realization.

3. CATEGORIES OF RISK

Based on the risk hierarchy proposed by Dey et al. (2011) and the resource-based review of Badewi et al. (2017) this paper classifies the finance transformation risk into five categories. Table 1 shows these categories along with a brief description of each and an example identified in the literature above.

Table 1. Qualitative categories of risk

Category	Description	Typical source in the literature
Technical	Software configuration, data migration and system integration risk	Zeng and Skibniewski (2012), Gordon and Dyer (2014)
Schedule	Delay risk due to testing, training or cutover activities	O'Leary (2000), Rodriguez et al. (2019)
Operational	Risks due to employees not using the system in right way	Teittinen et al. (2012)
Business	Risk due to new system not compatible for financial reporting or controls	Gordon and Dyer (2014), Anaya (2019)
Organizational	Weak change management, Governance, Employee readiness.	Misra et al. (2017), Vitasek et al. (2012)

Table 1 indicates that the finance transformation programs risks does not necessarily originate from technology but it is spread wide across the organization. Most of the studies reviewed above identifies organizational and operational risks are significant in ERP implementations. The findings necessitate that the risk plan must give attention to organization and operational risks in the same way it gives attention to system risks.

4. SCORING RISK

The scoring of risk factors in this paper is based on a simple probability and impact basis approach. This procedure is based on Zeng and Skibniewski (2012) and Dey et al. (2011).

The risk score is the product of risk factor probability and impact of the risk. This association is reflected in Equation 1.

$$R_i = P_i \times I_i \quad (1)$$

In Equation 1, R_i denotes the risk score of risk factor i, and P_i denotes the likelihood of occurrence of risk factor i on a scale between 0 and 1, and I_i denotes the impact score of risk factor i, which is normally rated between 1 and 5.

Total program risk is the sum of individual risk scores of all research factors identified. This association can be found in Equation 2.

$$R_{total} = \sum_{i=1}^{n} P_i \times I_i \quad (2)$$

In the equation 2, R_{total} is the overall risk score of the entire program and n represents the total amount of risks identified of the program.

With a simple overrun ratio, a finance transformation program is able to monitor cost performance as well. Equation 3 shows this relationship.

$$CO = \frac{AC - BC}{BC} \times 100 \quad (3)$$

The variables in Equation 3 are CO which is the cost overrun as a percentage, AC which is the recorded actual cost at any point in the program and the BC is the expected budgeted cost at that point of time. If the value is

positive, then it indicates that the program is overspending and if it is negative then the program is trending below budget.

The same formulae can be used to monitor the overrun ratio by schedule. In this case, the cost values are replaced with the schedule values as demonstrated in Equation 4.

$$SO = \frac{AD - BD}{BD} \times 100 \quad (4)$$

SO represents the schedule overrun in the form of a percentage in Equation 4, AD represents the actual time spent in the program till that point for delivery and BD is the planned time for the same delivery.

Table 2 presents illustrative risk scores that a program team can calculate using Equation 1 for five risk factors representing the categories identified in Table 1. The values presented in Table 2 are for illustrative purposes only and demonstrate how the proposed risk-scoring methodology can be applied.

Table 2. Application of the risk scoring

Risk factor	Category	Probability (P)	Impact (I, scale 1 to 5)	Risk score (R = P x I)
Data migration errors	Technical	0.4	4	1.6
Timing problem with the user acceptance test	Schedule	0.5	3	1.5
Staff unable to use new reports	Operational	0.6	4	2.4
General ledger structure is not related to reporting requirement	Business	0.3	5	1.5
Lack of strong sponsorship by the senior management	Organizational	0.4	5	2.0

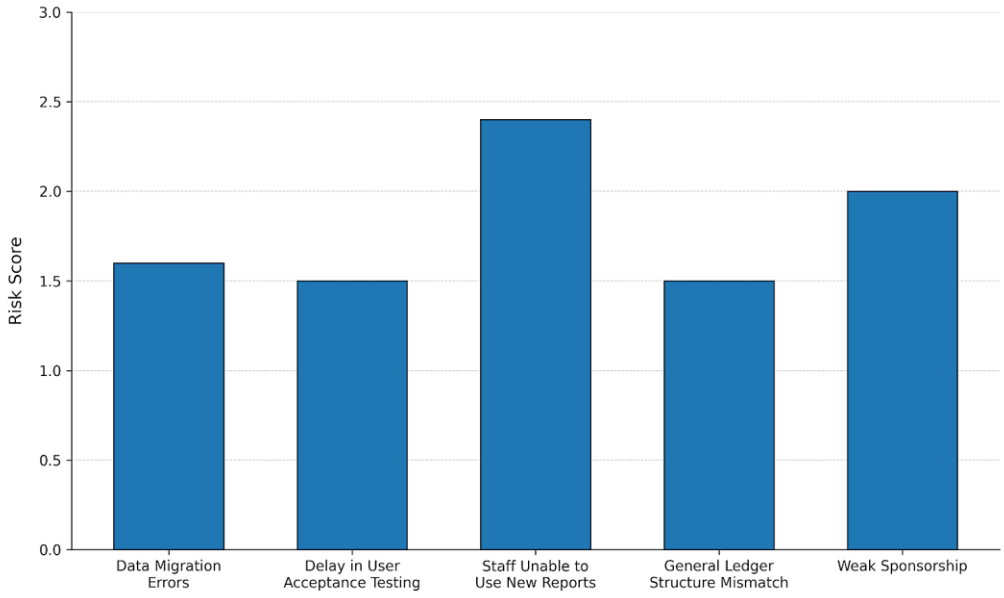


Figure 1. Risk Scores

The values in table 2 indicate that the total score of operational and organizational risk factors can exceed that of technical risk factors even when their individual probabilities are lower than those of technical risk. This trend is consistent to the findings of Teittinen et al. (2012) who found the operational challenges will continue to exist beyond go-live. Applying equation 2 for the above illustration gives a combined risk score of 9.0 for the five factors. The program team can use this score for comparing risks across transformation project or between implementation strategies that is big bang vs phased approach.

5. FRAMEWORK FOR BUSINESS RISK

The paper presents a framework that connects risk scoring to the program governance and implementation strategy. The implementation model proposed by Rodriguez et al. (2019), supplemented by risk management activities suggested by Dey et al. (2011) and Anaya (2019) was adopted into four stages and incorporated into the proposed framework.

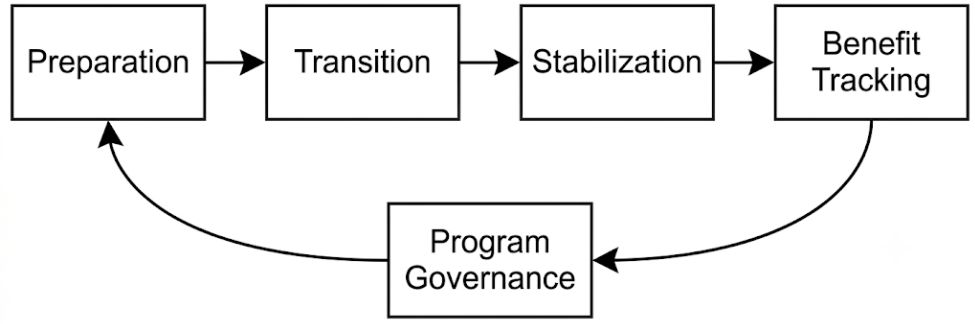


Figure 2. Risk reduction framework

The first step is the preparation. In this phase the program team will map the business requirements to the new system design as per the findings of Rodriguez et al. (2019). The team then creates the risk register by using the lists of categories proposed in Table 1, and scoring the risk factors explained in Equation 1.

The second phase is the transition. In this phase, the program team will pick an implementation strategy, either a phased or big bang approach based on the considerations discussed by O'Leary (2000). Equation 3 and Equation 4 are used to monitor cost and schedule performance while the risk register is updated as new information emerges from this step.

The third phase is stabilization. During this stage, the program team monitors the operational risk factors listed in Table 1. Studies indicate that employees face challenges in using new systems after go live. The team therefore evaluates additional training needs and monitors the percentage of errors in financial reports.

The fourth phase is the benefit tracking. In this phase, the program team applies the benefits management techniques, recommended by Anaya (2019), to determine whether the finance transformation delivers the financial and reporting benefits expected from the investment. The team compares the actual results with the objectives set at the beginning of the program and evaluates performance using measures examined by Galy and Sauceda (2014) including impacts on net sales, return on assets, and earnings.

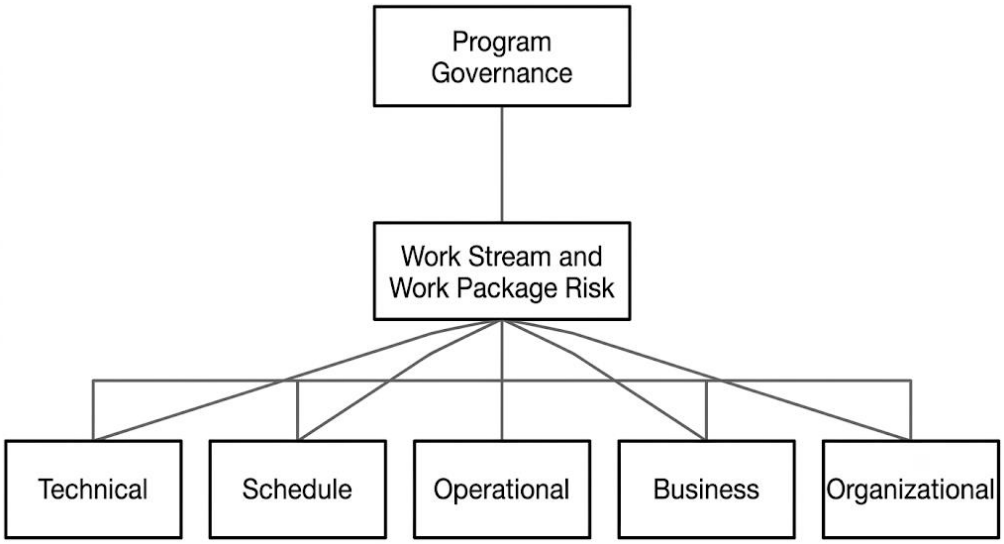


Figure 3. Risk category hierarchy (Dey et al., 2011)

The combined risk score calculated by Equation 2 should be assessed by a governance body at each stage gate. If the combined score exceeds an agreed threshold, the automatic progression to the next stage should be delayed until the team decrease the combined score with appropriate actions. This gate-based approach aligns with the continuous risk management methodology outlined by Dey et al. (2011), in which risk assessment is treated as an ongoing activity rather than a one-time exercise conducted at the beginning of the project.

6. RESULTS AND DISCUSSION

The aggregate risk score of 9.0 in the above illustration (table 2), within a possible range of 0 to 25 for the five risk factors, indicates a moderate level of overall program risk. The results also suggest that organizational and operational factors contribute more to the overall risk profile than technical factors.

Table 3 compares the risk patterns identified across the reviewed studies, classifying them according to whether the primary risk of failure is associated with the technical layer or with the organizational and process layer.

Table 3. Qualitative comparison of failure drivers

Study	Main driver of risk or failure	Layer
Badewi et al. (2017)	Resources inequalities and System Capabilities	Organizational
Misra et al. (2017)	Inadequate modelling of causes and outcomes of organizational change.	Organizational
Zeng and Skibniewski (2012)	Component failure during system operation.	Technical
O'Leary (2000)	Mismatch between Implementation strategy & Organization size and structure	Schedule
Rodriguez et al. (2019)	Lack of strong process/training design.	Organizational
Vitasek et al. (2012)	Inadequate outsourcing government and incentive system	Organizational
Dey et al. (2011)	Lack of hierarchical risk visibility across program levels.	Organizational
Ram et al. (2013)	Misalignment between implementation success and expected performance improvement.	Organizational

Teittinen et al. (2012)	Gap between expected and actual organizational control after go live	Operational
Gordon and Dyer (2014)	Inadequate General ledger design and organization	Technical
Anaya (2019)	Inadequate benefits management practice.	Organizational

7. CONCLUSION

Finance transformation program risks can be categorized into technical, schedule, operational, business, and organizational factors. The findings indicates that most of the risks identified in the reviewed literature are due to organization and operational factors than technical factors. The proposed probability and impact scoring approach provides program teams a mechanism to categorize risk during each program stage while the cost and schedule overrun formulae support ongoing performance monitoring. The framework integrates this risk-scoring methodology with a four-stage implementation process consisting of preparation, transition, stabilization, and benefits tracking. Risk assessment is therefore treated as a continuous process throughout the transformation rather than as a one-time activity at the beginning of the program. Organizations undertaking finance transformation should give change management, governance, and post-implementation support the same level of attention as system selection and configuration.

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