

### Introduction

In the ever-changing digital business environment, organizations need to be able to adapt quickly and become more agile [1]. The IT Capability Maturity Framework (IT-CMF) is an IT management framework comprised of 36 key areas or Critical Capabilities (CCs) [2], one of which is Benefits Assessment and Realization (BAR). This position paper presents an overview of key insights, to provide context and understanding of the value of organizations having an effective benefits assessment and realization capability in the digital business context, as derived from academic and practitioner literature.

### Relevance of Benefits Assessment and Realization in the Digital Context

The purpose of investing in digital technology is to enable the organization to do new things or to do existing things more efficiently or effectively [3]. Information technology adds value by supporting both business continuity and business change [4], which are essential in effectively transforming to a digital organization, whilst maintaining a stable and resilient operational IT backbone. However, there is also a risk that IT-enabled change will happen without adding the anticipated business value. The realization of anticipated value depends on management's effectiveness in leveraging the investment to achieve business results with a clear understanding of the strategic rationale for the IT investment and the organizational context in which the benefits have to be realized [5]. Results vary significantly in the effectiveness of different organizations in this regard [6], [7]. Therefore, it is widely accepted that organizations need to enhance their capabilities for managing the potential benefits to be derived from IT-enabled change.

The IT-CMF BAR CC looks beyond the tactical execution of individual IT projects to the actual achievement, through organization-wide cooperation and engagement, of business benefits [8]. The BAR CC connects the project, strategy, and day-to-day business activities [5]. In the digital context, a redevelopment of this CC was required to enable the organization to assess and realize benefits in more proactive ways, recognizing the need for agility and innovation as key digital benefit drivers for IT investments.

### Managing Benefits Assessment and Realization in the Digital Context

A BAR capability will enable the organization to identify, plan for, and manage the delivery of business benefits arising from technology expenditure and resultant IT-enabled change. There needs to be a shared understanding throughout the organization of how IT-enabled change contributes to the realization of business value. A focus on business value leadership and culture, business value drivers, and governance throughout the investment life cycle, from decision-making on the initial concept through to the eventual retirement of assets, is required in order to realize the full potential benefits. A mature organization will create a shared understanding and acceptance of business value and how

the portfolio of IT-enabled change programmes contributes to the realization of this value, unifying individuals around these organizational objectives across the enterprise and, where appropriate, across the value chain. Organizations need to be sufficiently agile to adjust to the complex and changing digital business environment, that is they must pursue emerging benefits and abandon pursuit of benefits that no longer align with the organization's digital agenda [1], [5]. This approach requires new ways of thinking about the business case [1]. A structured benefits management approach, as outlined below, can help optimize the flow of benefits to support the organization's digital business strategy across the full life cycle of the investment [9].

A consistent set of benefits management methods is required to underpin decision-making throughout the investment life cycle. In terms of benefits management methods, the benefits processes outlined below remain necessary as a core support:

- Benefits planning i.e. identifying, structuring, quantifying, and planning the interdependent outcomes and business benefits of IT-enabled change initiatives and making explicit the means by which they will be achieved.
- Benefits enablement i.e. determining the wider organizational change necessary to realize the intended benefits from IT-enabled change.
- Benefits review and harvesting i.e. establishing oversight mechanisms to ensure that the forecasted benefits are delivered and that the organization avails of any unexpected benefits that arise.

Additionally, the need for agility puts more emphasis on change management, learning, and innovation-related practices to ensure benefits realization. Stakeholders must agree on how to create and sustain business value from IT-enabled change. A consistent set of key performance indicators (KPIs) and templates should be used to develop effective business cases, which are actively and effectively used as key decision-making and management tools throughout the full life cycle of an investment decision [2]. In addition, the following management artefacts are useful in managing benefits assessment and realization:

### **Library of Business Value Indicators**

Value indicators provide a framework for understanding and quantifying business benefits from IT-enabled change. Defining and using standard indicators establishes a common language for describing specific, observable, and quantifiable impacts on business goals. Value indicators are financial and non-financial measurements of business value, against which all initiatives can be measured – the approach being that if the impact of a proposed project cannot be expressed in terms of one or more value indicators, then it should not proceed. The specific value indicators for each organization will vary, but they are likely to be related to such items as cash cycle, efficiency, time to market, customer growth/retention, compliance with regulations, and so on [2]. In a digital transformation, value indicators related to customer experience satisfaction, innovation, and operational agility become more important.

## Benefits Plan

The benefits plan documents the ownership of expected benefits and the responsibilities for delivering them. It identifies the organizational changes that are required to realize the benefits and who is responsible for making them happen. It is separate from the technical change implementation plan, but depends on it to introduce the enabling technology [2]. The benefits plan supports tracking of benefits over time to determine the business value effectiveness of IT-enabled change such as digital transformation initiatives.

## Business Case

The business case outlines how the financial and business justification for a proposed IT-enabled change programme is to be presented. It sets out the format for presenting the analysis of costs, benefits, risks, and underlying assumptions, and describes how the proposed investment should be related to its strategic context. The business case should cover all topics that are taken into account in making a decision about whether a project should proceed, therefore the digital transformation objectives, such as organizational agility, need to be reflected here. Business cases constructed using a common template are easily compared with one another, so that informed choices can be made. The business case remains important throughout the entire life cycle of an IT investment – from the initial decision to proceed to the decisions made at periodic project reviews to continue, modify, or terminate the project. The business case should therefore reflect this [2].

## Benefits Map

To prevent projects focusing simply on technology implementation, a clear link between business drivers, which support the business strategy, and intended benefits to be derived from IT-enabled change should be made. A benefits map is a graphic illustration of the cause and effect links between overall investment objectives, intended benefits, underlying organizational changes needed, and the enabling technology. A benefits map can promote a common understanding among stakeholders that, to realize intended benefits, everyone involved must treat the project as an organizational change project, and not just a technology implementation project, by linking the benefits to the actions [2]. Developing a benefits map with involvement of all stakeholders aligns well with the culture of collaboration required in digital transformation.

## Benefits Register

A benefits register is a detailed document that supports the benefits plan and it is used to track the progress and outcomes of all forecasted benefits. It defines each benefit (and dis-benefit) and contains key information about each, including, the benefit owner (the person responsible for realizing the benefit) and the status of key information such as outcomes, metrics (KPIs), measures, and targets.

## Benefits Assessment and Realization Guiding Principles

Based on the digital insights described above, a set of guiding principles were adopted for developing the revised BAR capability. These are detailed as follows:

## **1. A value mind-set/culture across the organization**

Organizations need to move beyond a culture of delivery – “build it and they will come” – to a culture of value: a culture that focuses on creating and sustaining value from an organization’s investments in IT-enabled change, including the operation and use of the new or changed assets resulting from that investment. This necessitates enterprise-level leadership support and sponsorship, an understanding of value drivers, and a common value language. Awards and incentives towards a value-maximizing strategy need to be in place, with structures to support these. Without shifting the focus from activities to benefits across the enterprise, benefits may only be partially realized, or even be completely lost.

## **2. Benefits come from change**

Benefits do not come from technology in and of itself, but rather from the change that technology both shapes and enables. This change must be both led and managed, and all stakeholders must be aligned to support it. Digital transformation contributes business value by enabling and leveraging innovation and change both in the organization and in the wider business ecosystem.

## **3. Benefits must be outcome-related**

Benefits should be clearly stated in terms of the expected outcomes (or their contribution to those outcomes) and measurable. Metrics need to be defined and monitored for benefits and any assumptions related to the achievement of those benefits. Benefits, the output of projects/actions, usually have to integrate with others before generating business outcomes. It is important to understand complexity in benefits relationships and interdependencies in order to maximize the realization of the benefits and, where possible, avoid creating dis-benefits.

## **4. Relevant metrics/value drivers**

Appropriate and consistent value-based performance metrics, with consideration given to both financial and non-financial goals (e.g. customer satisfaction, product innovation, and employee satisfaction) need to be developed. Performance metric relationships should be mapped to useful operational value drivers that can be understood by all. Alternative techniques should be used, such as a combination of quantitative and qualitative evidence metrics. It is also useful to measure lead indicators, and projected and actual metrics. Value drivers are not static, therefore, they must be reviewed regularly, and should be considered in a holistic way rather than in isolation.

## **5. Value structure**

A benefits realization strategy needs a consistent, repeatable methodology - standard IT value metrics that provide comparable calculation across investments. It requires definitions and rules that determine when a business case is needed, and detail in budgets, actions plans, and consistent metrics.

## **6. Full life cycle**

Benefits must be actively managed throughout the full life cycle of an investment decision to ensure continued alignment with the organization’s digital business strategy.

## 7. Accountability

There should be clear accountability for the realization of benefits (including consequences, roles and responsibilities). Enterprise-wide responsibility means shared accountability and ownership across the organization from delivery (project managers), to business outcomes (business managers), to senior executive accountability and a commitment to connect outcomes to financial results.

## 8. Continuous learning and improvement - adaptability/flexibility

The use of BAR practices should be continually monitored and improved based on lessons learned and the current state of practice. One size does not fit all - BAR practices should reflect the notion that there are different categories of investments and assets, and organizational contexts that will require different approaches (e.g. in terms of scalability and adaptation).

## Conclusions

Benefits assessment and realization is central to deriving business value from investments in digital technology. The BAR capability is concerned with value leadership, benefits governance, benefits processes, management of change, and organizational learning - all key areas of management in addressing the digital context. A digital business value mind-set needs to be established among stakeholders. The scope of decision rights and accountabilities for benefits management in the organization, operational practices to support benefits management, and how organizational change is effected all need to be determined. The ability of the organization to improve and develop its management of benefits and thereby optimize business value for the organization in a sustained way is critical. In summary, a benefits realization capability helps an organization to ensure that it is deriving all the potential benefits from digital change initiatives [10].

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## Further Reading

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## Contributing Authors

Ms. Catherine Crowley, Research Fellow, Innovation Value Institute.

Dr. Clare Thornley, Senior Research Fellow, Innovation Value Institute.

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The Innovation Value Institute (IVI) is a multi-disciplinary research and education establishment co-founded by Maynooth University and Intel Corporation. IVI researches and develops management frameworks to assist business and IT executives deliver digitally enabled business innovation. IVI is supported by a global consortium of likeminded peers drawn from a community of public and private sector organizations, academia, analysts, professional associations, independent software vendors, and professional services organizations. Together, this consortium promotes an open ecosystem of research, education, advisory support, international networking, and communities-of-practice. IVI is supported through Enterprise Ireland's and IDA's Technology Centre programme.

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