



Project Portfolio Management Utilization in Icelandic Organizations

Kristinn Þorvaldsson

Thesis of 12 ECTS credits
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PROJECT PORTFOLIO MANAGEMENT UTILIZATION IN ICELANDIC ORGANIZATIONS

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ABSTRACT

Modern organizations are turning to Project Portfolio Management (PPM) in order to implement corporate strategy. Icelandic organizations, in a post-2008 global financial crisis, are no exceptions. While Project Management has been practiced and studied in Iceland for more than a decade, little is known about the status of PPM. PPM status in Iceland seems to be in its infancy compared to the potential benefits that a mature PPM approach can provide. Portfolios are mostly used as Project registries with little steering mechanisms implemented and are therefore somewhat lacking as effective vehicles of strategic implementation for Senior Management. The reason could be due to the obscure and generic meaning of the Icelandic word used for PPM, indicating a need for a new more managerial term for PPM.

Key words: Project Management, Project Portfolio Management, PPM, Strategic Execution,

SAMANTEKT

Nútímafyrirtæki eru farin að snúa sér að stjórnun verkefnaskráa til þess að innleiða stefnu. Íslensk fyrirtæki í eftirköstum alþjóðlegu fjármálakreppunnar 2008 eru þar engin undantekning. Verkefnastjórnun hefur verið stunduð og stúderuð á Íslandi í meira en áratug, en lítið er vitað um stöðu verkefnaskráa í landinu. Staða verkefnaskráa virðist enn vera að slíta barnsskónum ef horft er til mögulegra ávinninga þess sem þroskuð verkefnaskrá getur leitt af sér. Verkefnaskrá virðist vera notuð sem skrá yfir verkefni með litla virka stýringu í gangi og þar af leiðandi takmarkandi sem verkfæri fyrir innleiðingu á stefnu í höndum stjórnenda fyrirtækja. Ástæðan fyrir þessu kann að vera tengd orðinu verkefnaskrá sem er óljóst og almennt orð sem gefur til kynna þörf á nýju heiti með augljósari tengingu við stjórnun.

Lykilorð: Verkefnastjórnun, Verkefnaskrá, Verkefnasafn, PPM, Innleiðing stefnu

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1. INTRODUCTION

After the global financial crisis in 2008, organizations had to act quickly to realize where their future lay in a chaotic market environment. A new vision was needed and along with it a new strategy for a changed world. Managing change can be done in various ways and one is integrating change via formal Projects through the use of Project Management (Kerzner, 2009). While Project Management (PM) focuses on individual Projects, or in the case of large segmented Projects as Programs, fundamental PM has little to do with making sure organizations are selecting and steering Projects in alignment to their strategy. This is where more advanced PM is needed and is a valid reason for organizations to adopt a specific methodology for Project selection, through the use of Project Portfolio Management or PPM (Morgan, Levitt, & Malek, 2007).

Iceland was hit particularly hard in the 2008 global financial crisis. The country may be known for high work ethics but is still infamous for the inefficiency of its workforce. This is what makes it an interesting place to study the use of PPM within organizations (Level of GDP per capita and productivity, 2015). Project Management is a well-known field in Iceland but the practice of PPM has not been studied as separate entity before. Therefore this research assessed *which parts of Project Portfolio Management Icelandic organizations are utilizing and how they are managing their Portfolios*.

2. LITERATURE REVIEW

To begin with it is important to differentiate the concept of Project Portfolio Management (PPM) from Project Management for organizations wanting to adapt PPM into their culture. Subsequently, current knowledge of PPM is reviewed, stressing the connection between strategy and PPM. Finally the current Icelandic literature on the subject of PPM are reviewed.

How Project Portfolio Management Differs from Project Management

In ICB3, version 3.0 of the International Project Management Association competence baseline (2006), Project is defined as "... a time and cost constrained operation to realize a set of defined deliverables (the scope to fulfil the Project's objectives) up to quality standards and requirements". Project management's main focus is therefore on Project deliverables according to preapproved qualities and budget and delivering them on time. These three aspects are often collectively referred to as the iron triangle of Project Management. PPM on the other hand focuses on an organizations coordination of a set of Projects, or Programs, in a holistic way. Throughout the paper the use of the word Project will also refer to Program, as a Program refers to a chain of interlinked Projects or simply a Project with a large scope and more significant benefits (Project Management Institute, 2013).

In ICB3 (2006), PPM is described in the following way: "The Portfolio Management of Projects and/or Programs covers the prioritization of Projects and/or programs within an organization and the optimization of the contribution of the Projects as a whole to the organization's strategy". According to *A Guide to the Project Management Body of Knowledge* (PMBOK® Guide), published by Project Management Institute (PMI) (2013), PMI views PPM in the following way: "Portfolio Management refers to the centralized management of one or more Portfolios to achieve strategic objectives. Portfolio Management focuses on ensuring that Projects and programs are reviewed to prioritize resource allocation, and that the management of the Portfolio is consistent with and aligned to organizational strategies". Thus, PMI identifies the three key

components of PPM, which will be regarded as the backbone of PPM throughout the paper:

- Centralized Portfolio Management Structure
- Prioritized Resource Allocation
- Strategic Alignment

Whereas Projects are defined as temporary entities with a specific start and finish, Portfolios are not meant to come to an end. Rather, it can be said that a Project Portfolio is a nested entity within a given organization; a dynamic shadow organization constantly reinventing itself and its structure through the practice of the Portfolio Steering. Portfolio Management is therefore a field that is attuned to Organizational Management as well as Project Management, and as such it is vital for a successful PPM to anchor the Portfolio to upper management as well as to key players within the Projects themselves (Beringer, Jonas, & Kock, 2013).

Managing Portfolios

Managerial aspect of PPM can be split into three stages; Portfolio Structuring, Resource Management and Portfolio Steering (Beringer, Jonas, & Kock, 2013). During each stage a different set of skills is required and also the key participants change between stages.

Setting up a Portfolio Structure within an organization is the foundation for Portfolio Management. The following questions need to be answered:

- Where in the Organizational Chart is the Portfolio positioned?
- How is the Portfolio Project Selection in alignment with strategic goals?
- What is the Portfolios Objective or its mandate?

In order to select the right resources for each Project and identifying when resources are constrained, a Resource Management perspective is needed. These managerial decisions can be, but are not limited to, the following topics:

- Selecting resources according to Project Priority
- How the correct resources are identified
- Balancing the Portfolio to use a wide set of resources
- Resource Conflict Management. What resources are there to distribute and how is the conflict resolved?

Portfolio Steering is the biggest part of PPM activity and requires the constant adjustment of the Portfolio in order significantly impact the Portfolio's benefits. Tasks include the following activities:

- Facilitating Projects in order to increase Project success rate
- Adjusting the Portfolio so that it is always in alignment with strategy
- Shutting down Projects that are no longer relevant to the organization
- Minimizing the overall risk in a Portfolio

Portfolio Risk Management

Organizations that are not used to managing risk are likely to fail to achieve expected Project benefits (Teller & Kock, 2013). For those organizations, where risk management is not a part of the organizational culture, a necessary step of Project Risk mitigation is to adopt a common understanding of PM through a shared terminology (Ahlemann, Teuteberg, & Vogelsang, 2009). A common PM terminology within an organization is an indication of high PM maturity levels. One of the added benefits of implementing PPM is the facilitation of a common terminology.

Portfolio Steering Committee

An inseparable part of PPM is the Portfolio Steering Committee or the Portfolio Board (PB). The role of the PB according to the guidelines of the Office of Government Commerce (OGC) is twofold and suggests that the PB could be split into two groups. The former, Portfolio direction group, should act as a gatekeeper and be in charge of what Projects the organization should be working on next in order to fulfil its strategic goal. The latter, Portfolio progress group, should be in monitoring current change initiatives (Projects or programs) in order to deliver them effectively. The guidelines also state that it is more important that the roles are active than it is to split the two functions into groups (Management of Portfolios, 2011).

A PB needs to have participants from key organizational stakeholders, but just as important is the presence of a sole sponsor or owner of the committee, for it to be effective. The frequency and duration of PB meetings can have a considerable impact on the desired purpose of a PM meeting. Mosavi (2014) has identified three types of PB meetings:

- Long meetings few and far between are optimal to support the PB as decision making venue
- Short meetings at short intervals are optimal to support the PB as a communicative and unifying venue
- Meetings of medium length and at medium intervals are optimal to support the PB as a negotiation venue

Strategic Engagement

Most organizations strive to transform their strategic message into action. This should be done by breaking the message down into manageable portions aligned with the organization's strategy, whereas strategy symbolizes the organizational purpose (Morgan, Levitt, & Malek, 2007). A Project Portfolio should for that reason comprise of Projects that facilitate the actualization of the strategy. The further the Projects in the Portfolio are from the strategy the more disconnect exists between what the organization is saying and what it is doing. This disconnect is identified as a strategic drift in Mike Freedman's article *The genius is in the implementation* (2003). According to Freedman, that drift can be prevented with a careful launch of the Project Portfolio Program.

On the other hand, organizations working on Projects with a clear link to its current strategy help employees grasp the importance of a given Project while simultaneously giving them a meaningful purpose. Thomas and Velthouse (1990) state that this meaningful purpose can be one of the strongest motivators for employee engagement. What PPM can then actually do is help the organization and the employees conceptualize their purpose. PPM can therefore be seen as a key method to manage a number of Projects as well as an effective way for organizations to maintain a competitive advantage through employee engagement (Huemann, Keegan, & Turner, 2007).

PPM Literature in Iceland

Project Portfolio Management in Iceland has not been studied as a specific field, though certain aspects of PPM have been examined. Sigrún Hauksdóttir (2012) examined the process of Project Selection, a critical part of PPM, where she concluded that the uptake of a formal Project selection process would increase considerably in Iceland in the following years. Kristjánsson (2012) focuses on implementing a scoreboard as a steering mechanism for Projects in small consulting firms. Also, two case studies explore the benefits of Project Management Offices (PMO) in Iceland and touch on PPM, although their main

focus was on PMO maturity (Gíslason, 2012) (Blöndal, 2007). Finally a paper on a suggested PMO office for the Icelandic conglomerate of gaming companies, viewed PPM as one of the benefits of developing shared standards for Projects in the Icelandic Gaming Industry (Sverrisson & Bergþórsson, 2013).

3. RESEARCH METHOD

As noted before, the goal of this study was to examine the use of PPM in Icelandic organizations, specifically looking at which parts of PPM are being used and how. A quantitative research method was chosen as the best way of finding these categorical variables. Mixing in a couple of open-ended questions at the end of the survey regarding the organizational benefits provided by PPM was vital in order to prohibit the possibility of feeding the participants with the option of the 'right' answer (Creswell, 2003).

Where PPM is Practiced

In order to narrow down the sample pool of organizations, some scoping decisions had to be made. While researching which organizations used Project Portfolios to manage Projects, two things became clear early on:

- a) Most organizations in Iceland that use PPM are large companies
- b) Few Icelandic public-sector organizations use PPM

Although Iceland has a fairly small population of just over 300,000, it had 17,299 thousand taxpaying organizations in 2013, according to a special report done by the Icelandic Statistics Office for the Business Iceland (Samtök Atvinnulífsins, 2015). Only 71 of those had 250 employees or more and qualify as large companies according to the EU segmentation for businesses (European Union, 2015).

To simplify the study, only non-governmental organizations that qualified as large companies were contacted. Furthermore, in order to contact only the large companies that are using PPM, a comprehensive online search was conducted to qualify these large companies for the research. Search included the words Project Manager, Project Management Office, Project Portfolio Management and their acronyms. In Icelandic the word used for PPM, "Verkefnaskrá", is also commonly used for a task list and as such that alone did not qualify the company as an active PPM organization. The search was divided up into two parts:

- a) Company official website search
- b) Social media employee search

Most of the companies' official websites were up to date. All had either a list of employees along with their job description or the organizational chart along with Senior Management. Social media search included Facebook but mostly information from LinkedIn, where users list their skills and work experience. At an Icelandic Project Management alumni page on Facebook, users were also asked to provide information of companies that they knew for a fact used PPM.

The search established a list of 64 employees, from 48 different companies. Of these 48 companies, 34 have more than 250 employees or just under half (48%) of the 71 large companies in Iceland.

The Survey

A survey was sent via email to this list of PPM experts. Included was the request to participate and a link to the survey itself, which was created using Google Forms.

The survey was split into three sections with a total of 24 questions of mixed variety.

- 4 open-ended text questions
- 4 multiple choice questions
- 8 single choice questions
- 5 ratio selections on a scale of 0-100%
- 3 Likert scale psychometric questions.

Apart from the first question regarding the organization's name, the questions could all be linked to the three key components of PPM identified by PMI and stated before as being 1) centralized Portfolio Management structure, 2) prioritized resource allocation and 3) strategic alignment.

The first section contained questions about the structure of the Portfolio, including a question on the duration of which the Portfolio has been in use and what types of Projects were included in the Portfolio. The second part focused on Project selection and prioritization, including questions on the PB. The third and final part asked about the Portfolio steering process and its strategic alignment, finishing off with open-ended questions regarding current and future benefits of using PPM at the participants companies.

4. RESEARCH RESULTS

Of the 34 large companies in Iceland contacted, 17 responded to the survey making the response ratio 50%. Two of the people on the email list sent a private response stating that their use of Portfolios were either for customer Projects only or used only for departmental lean Projects aimed at limiting waste in the company's processes. Both of them felt that they could not participate in the survey.

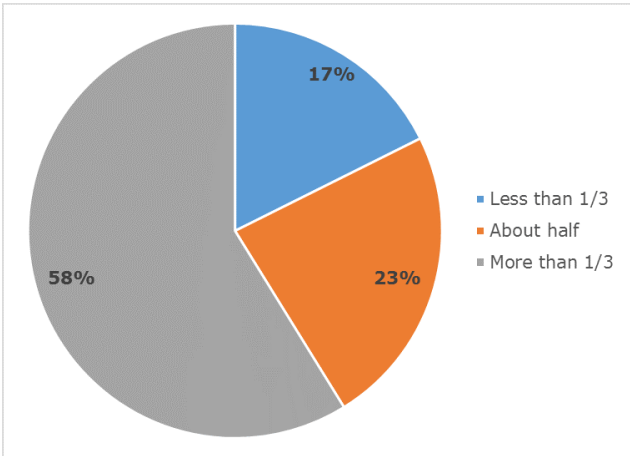
Centralized Portfolio Management Structure

The survey shows that just under 30% of the respondent organizations have been using Project Portfolio for more than 5 years, while 35% have just started using PPM in the past 12 months.

More than half (60%) of the organizations have 10-49 active Projects at a given time in their Portfolios, whereas only one respondent claimed 100 or more Projects being managed in their Portfolio. Only 12% had less than 10 ongoing Projects and twice as many had respondents (24%) had between 50-99 Projects from the Portfolio normally ongoing.

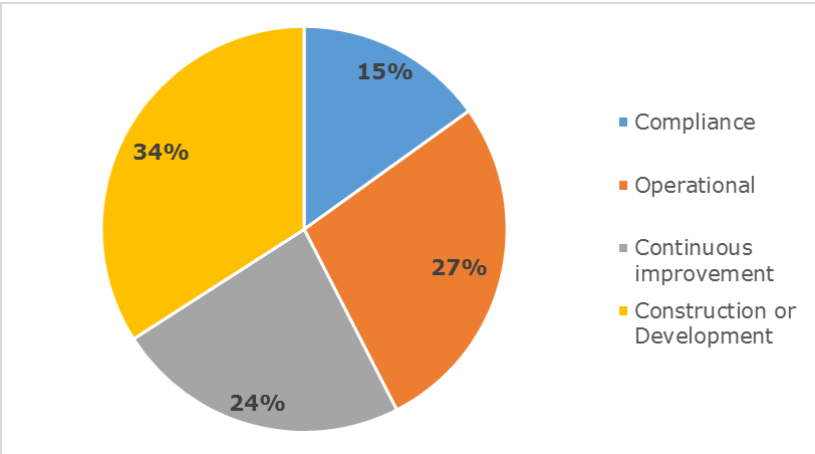
Two respondents chose not to answer the question on what ratio of their organization's Projects are managed in their Portfolio. As seen in *Graph 1*, 58% found it to be more than half of the organization's Projects and 18% went as far as stating that all their Projects were managed within their Portfolio.

Graph 1 - What percentage of the organizations' Projects are managed within the Portfolio?



Although one in every three respondents said they did not prioritize their Portfolio based on Projects rating, all participants assigned a Portfolio ratio to the four Project Domains given. The question for each Domain asking, "What is the common ratio of Projects in the Portfolio which can be categorized as..." concluding with one of the four given domains; Compliance, Operational, Continuous Improvement and Construction or Development, with the results displayed in *Graph 2*. Icelandic vocabulary being a bit more restricted than English, made it necessary to combine the IT and Business-oriented Development type of Project with the engineering-focused Construction type.

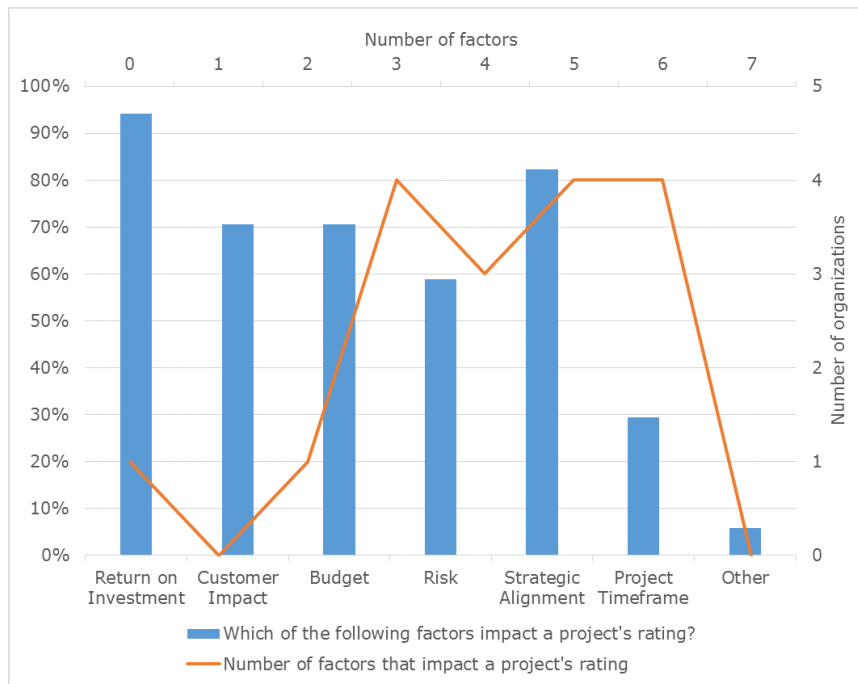
Graph 2 - Balance of Project Types within Portfolios



Prioritized Resource Allocation

When asked about factors that impact a Project's Rating, only one respondent did not select any of the given factors, but all other selected at least the commonly used Return on Investment (ROI) in a multiple choice question as seen in *Graph 3*. Also, only one participant listed a factor in the "other" section of the question. Average number of factors used to rate a Project is 4, with Strategic Alignment being selected by 82% of respondents.

Graph 3 - Factors impacting a Project's rating

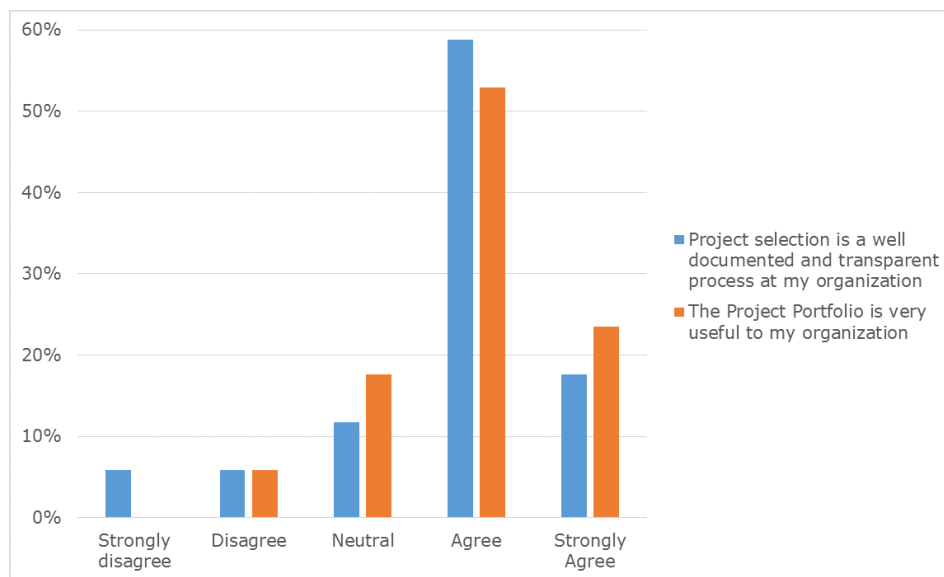


Only 59% respondents knew and shared how their Projects are scored. Of them, only one respondent answered that the Project score is a Combined Individual Score, where each PB member's score is added together, whereas 80% of the organization would rather use a Group Scoring mechanism. Five is the median number of people in the group (i.e. the PB) clearing Projects into the Portfolio, although one respondent answered zero, indicating that there is no group that prequalifies the Projects. On the other end of the spectrum two organization have 10 or more people qualifying Projects into their Portfolio. Both of these organizations allow the group to come up with a single score, not allowing these 10 or more people to have their individual score for a Project.

When qualifying Projects into the respondents' organization's Portfolio, Type, Senior Management visibility, Time and Cost were used, among a couple of other, including 53% using Complexity. Risk, however, was never mentioned as qualifying aspect of a Project. 29% used Risk all the same as a steering mechanism to assess Project's progress and while Complexity was used by none.

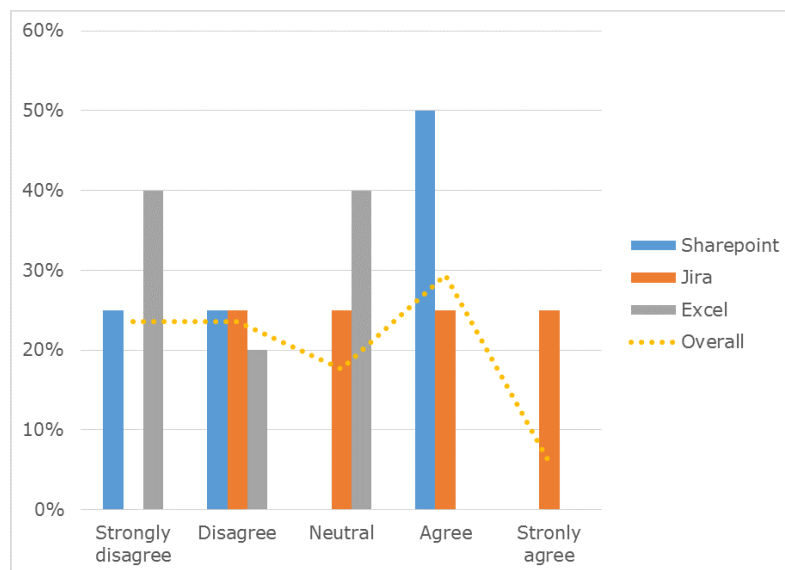
Only 12% of respondents believe that their organizational Project selection process is not well documented and transparent. 12% are neutral, but 76% either agree or strongly agree with the statement, "Project selection is a well-documented and transparent process at my organization". The results for the statement "The Project Portfolio is very useful to my organization" are almost identical as seen in *Graph 4*.

Graph 4 - How much do you agree with the following statements:



On average organizations are neutral towards the statement "Our Project Portfolio is well connected to other IT systems and decreases double entries of information", though 44% either agreed or strongly agreed with the statement. In *Graph 5*, the overall results are compared to the respondents' three most used software.

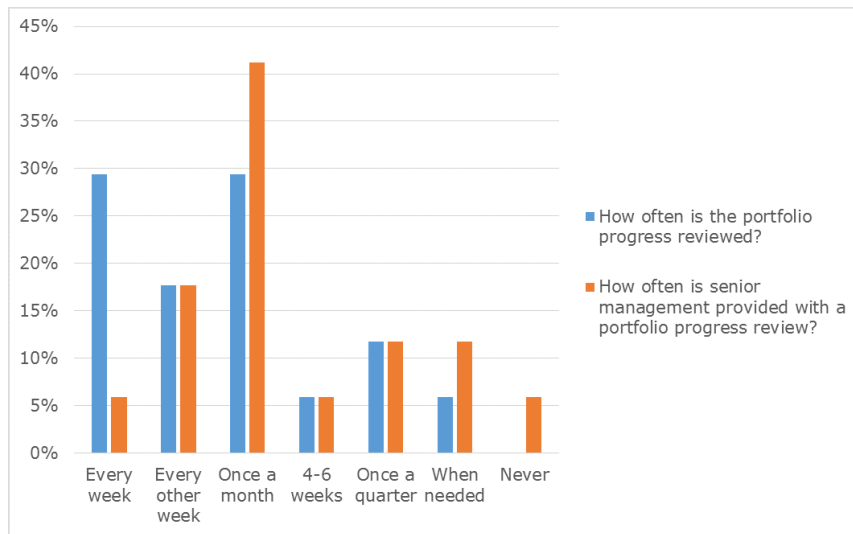
Graph 5 - "Our Project Portfolio is well connected to other IT systems and decreases double entries of information"



Strategic Alignment and Steering

Respondent's Portfolio review period varies from every week to once a quarter, as seen in *Graph 6*. Senior Management is informed of the Portfolio progress very similarly, although one organization never informs upper management of the progress.

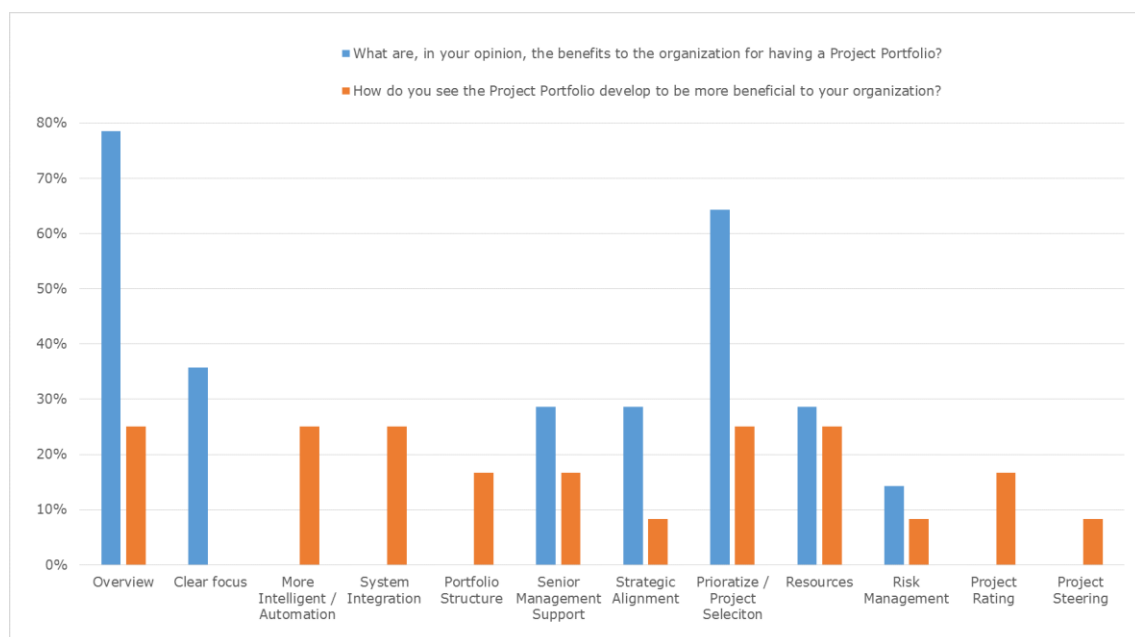
Graph 6 - Portfolio progress review



In the two open-ended questions at the conclusion of the survey, 12 focal aspects emerged as seen in *Graph 7*. In the first question, Overview and Priority / Project Selection were the only aspects that more than half of respondents marked as a benefit to their organization of having a Project Portfolio. One third or less mentioned anything doing with Senior Management Support, Strategic Alignment, Resources or Risk Management. In the latter question, participants were asked how they saw the Project Portfolio develop to be more beneficial to their organization.

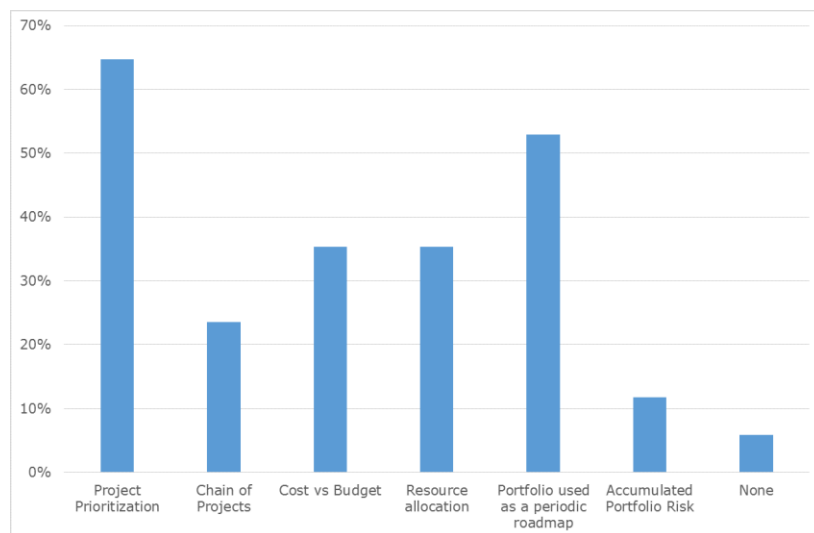
The ratio was similar to former question regarding the focal words or wording identified, with the exception of three concepts. Clear focus was never mentioned, although 40% of respondents had just mentioned the topic as a current Project Portfolio benefit to their organization. Sought after by 25% respondents as a future benefit, with none listing it as a current benefit for their organization, were More Intelligent / Automotive Portfolio as well as an Integrated System.

Graph 7 - Portfolio benefits



Finally, the participants were asked how progress is assessed in the Portfolio as a whole. Even though 29% use Risk as a Steering Mechanism for individual Projects, only 12% respondents stated that their organization add up the Projects' risk for an Accumulated Portfolio risk. As seen in *Graph 8*, Project Prioritization and a Roadmap function are the only Steering Mechanisms that more than half of the respondents use to assess the Portfolio.

Graph 8 - Which of the following steering mechanism are you using to assess the Portfolio itself?



5. DISCUSSION

The Project Portfolio seems to be treated by most as a simple Project registry. This could be because the field is still in its infancy stages in Iceland, but there is also another more straight forward reason possible. The Icelandic word for Project Portfolio is a generic one and directly translates as Project registry or a list. If that is the reason PPM utilization is just scratching the surface of PPM potential, it could be seen as a clear indicator that the PPM mandate is not well publicized or simply does not exist. A new term, anchoring PPM more to the strategic vision of the organization, could be what's needed to emphasize the importance of managing the Portfolio.

Portfolio Balance

Only 18% of the organizations surveyed include all their Projects in the Portfolio making the rest of them incomplete organizational Project Portfolios, also indicating that 82% of Portfolios only contain a specific set of the organizations' Projects. This is most likely due to the fact that a large portion of the respondents have been using PPM for less than 5 years and 35% for less than a year.

Project are profiled by types of domains but rated by the same sets of factors, regardless of their domain. None of the respondents mentioned another dimension of Project Profiling, such as the impact time of projects – indicating a lack of understanding that Portfolios should be balanced between short term and long term benefits of the Projects' deliverables.

Risk of Group Thinking

Of the organizations using a rating system to prioritize their Projects, only one is using a method of Combinational Scoring. In a highly synergic organization the Group Score can hypothetically generate a better result than the more democratic way of every member making an independent, equally weighted decision (Huczynski & Buchanan, 1997). By using a Group Score an organization is counting on a group of people to come up with a mutual score, making a huge risk of Group Thinking mentality taking place, where the first or the loudest idea is often selected without a critical conversation taking place due to the fear of having a different opinion than others (Jónasson & Ingason, 2012).

This can be seen as a gaping possibility of negligence as more than 75% of respondents believe this Project selection process is transparent and well documented. Adding to that the average PB group qualifying Projects into the Portfolio comprises of five people, while 47% are using six or more, who all but one must come up with a mutual score. Compared to the three types of meetings identified before, this mutual Group Scoring process should not be implemented with long interval between meetings as they should be used as decision making meetings – where much negotiations is not needed. However, every respondent who said the meeting between the Portfolio progress reviews are more than a month apart, have six or more people in the PB.

Managing the Portfolio

Neither current nor future Portfolio benefits that are listed by the respondents, include anything on the termination of Projects, therefore indicating an oversight of a potential benefit of eliminating wasteful use of resources. This also runs the risk of demotivating employees who are working on a Project that are no longer valid for their organizations and should have been canceled due to an organizational change or a shift in the market.

Accumulated Portfolio Risk should provide the Project Board with valuable information when it comes to Project selection. A Portfolio should neither have too much nor too little risk within their portfolio, as the right amount of risk is needed for a rewarding portfolio outcome. 94% of respondents do not use this aspect for their portfolio steering and therefore have no quantifiable way of knowing when selecting new Projects if the estimated added risk is acceptable to the Portfolio.

If the ownership of the Project Portfolio is taken into account, respondents from a Senior Management owned Portfolios listed twice as many future benefits per respondent as respondents where the Project Management Office is the owner. This is a clear indicator that Senior Management is expecting more from the PPM function in the near future. 29% of the Senior Management owned Portfolios listed Resource Management as a future benefit indicating an understanding of the managerial benefit of the PPM.

These results should be beneficial for current PPM organizations as it helps them identify where they are lacking as well as giving them a clear direction on how they should be developing their PPM. The results could also be used by organization looking into adopting PPM, helping them to facilitate the adoption in a faster way as well as starting with a long term vision of what their PPM should strive for.

6. CONCLUSIONS

Some of the most beneficial Portfolio balancing mechanisms that should be available to help the PB execute their job, are either not being used properly or have not been implemented. This shortage is in harmony with the vague focus on the management part of PPM. Steering is viewed as something that should either come from the PPM software system or just comprising of an easier reporting tool for Senior Management.

By showing faith in the Portfolio process as well as trusting employees for the reasoning behind active Projects, a higher employee engagement can be expected by organizations, according to Thomas & Velthouse (1990). The reasons for not increasing the level of trust, could be the lack of faith in the Portfolio Management process or an organizational culture driven by internal competition or fear instead of a synergized common goal orientation. The step of increased trust could however be seen as a fairly 'low hanging fruit' as it does not involve a costly or time consuming program. All that needs to be done is to keep people informed of what Projects are active and how they will help the organization reach their strategic vision.

To test these results further, other Project Portfolio users within the same organizations should be asked to answer the same survey, especially Senior Management. This would provide a holistic view of the PPM status for these Project driven Organizations as well as an indication of the Portfolio's structural anchoring. Portfolios are treated differently within every organization, but a vertical research, diving into a specific sector, could also be the ideal follow up research, providing a deeper understanding of specific aspects of PPM within the Icelandic community.

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