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Benefits of using Program and Project Portfolio Management on the Execution of Deliberate and Emerging Strategies: The Accountability Perspective

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Abstract

This article aims at speculating on the main benefits that can be derived from Program and Project Portfolio Management applied to the execution of deliberate and emerging strategies, within a governance, delegation and *accountability* framework. This study is supported by specialized literature, from which different authors and research papers were selected. Over the past six decades, the literature that addresses the strategic planning of public and private organizations has grown to become rich and diverse, while the *body of knowledge* of project management has also advanced, albeit more recently, in the direction of proposing project and program portfolio formats as viable tools for strategic execution. Although a large amount of research papers and magazine articles is already available on this application of Project Management methodology, we still lack sufficient literature on the *accountability* and *reporting* processes, which are basic governance tools designed for agency risk mitigation along the strategic execution road, while the organization implements deliberate strategies and must respond to volatility with speedy maneuvers and emerging strategies; This is, therefore, this paper`s intended value proposition.

Keywords: Planning; Execution; Benefits of Portfolio Management; Programs and projects; Deliberate and emerging strategies; Accountability; Reporting.

Introduction

The process of strategic planning, in any medium-sized or large organization, is perceived as long and complex, always has been so. Since the 1970s, for large organizations, it has become an even more complex exercise because of the oil crisis, its geopolitical implications and the landscape of unpredictability that took shape at that time. In his 1973 study *Scenarios, Uncharted Waters Ahead*, Pierre Wack introduced the concept of scenario analysis into the universe of corporate practices, as opposed to the prevailing method of setting strategic objectives based on a limited analysis of the environment. In fact, for an organization the size of *Shell Oil Company*, Wack's employer, the market is the world, and the world could become very dangerous in those days. Different scenarios, if implemented through the 1970s, could present unprecedented global challenges that could affect the very survival of an oil-based business.

Later, in the 1990s, the prevalence of intangible elements in the economic and social environment of most countries - intangible capital, business networks, faster computers, internet, social networks, etc. – resulted in a daunting challenge to all organizations, both public and private. A basic feature of this intangible universe is change. Yes, of course, change has been present throughout the centuries, more so in the twentieth century. But this post-internet change is different, because of the greater speed. And this speed of change, whether technological, market or geopolitical, generates a great asymmetry of perceptions. Without stability, the world's stable and shared "business as usual" vision simply does not exist. The classic assumptions applied to the strategic direction of organizations that prevailed along the late 20th century decades have been drastically affected by this new tempo and need to be revised.

How do you plan for the future, develop strategies and invest in the medium and long term, if the work scenario can – and will – change, so that most initial assumptions may turn out to be unconfirmed and possibly misleading later on? The resources that drive the wealth of nations, companies, and individuals are no longer the same. Try googling the current list of the world's largest companies or top brands. Most are networked, with assets and processes based on software and / or networked hardware. What does this mean? Intangible assets tend to prevail. While volatility, uncertainty, complexity and ambiguity have always existed as scenario variables inherent to the process of enterprise management, now these variables have grown and, in combination, have become the drivers of emerging strategies. Consequently, in the 21st century, the strategic planning process often creates deliberate strategies that tend to become less relevant and fuzzier over time, at least in their originally designed format. Of course, time has always been a risk factor for strategic projects, but this influence of the time variable in strategic execution has been significantly multiplied by the speed of change.

Even today, for most organizations, the scope of scenario analysis is still very limited. Planning methods continue to be almost always initiated by a brief environment analysis, followed by an attempt to identify opportunities and risks that this exercise can reveal. While striving to establish strategic objectives, the organization also will make an inventory of its resources - human, financial, and knowledge - and assess whether they are adequate and sufficient. According to Barney, 1991, for a sustainable competitive advantage, companies need to ensure resources that are valuable, rare and inimitable, which means that these resources must be protected by contracts, patents or barriers in some way. In a 21st century *knowledge-based economy,* knowledge tends to be the most relevant resource, if it can be ensured. Therefore, knowledge – and people - management becomes a bigger part of strategic planning, strategy execution and project management.

This is especially true in uncertain environments, as Miller and Shamsie's 1996 studies regarding a cluster of film production in Hollywood. The authors concluded that property-based resources generate good performance in predictable environments, while knowledge-based resources generate higher performance in uncertain environments. The term VUCA (Figure 1) emerged in the 1990s, created by US Army War College, to try to define - or rather label - this set of environmental variables that affected every type of project, company, or organization.

Figure 1: The term VUCA

V	**Volatility =** Continuous change in the business environment, with sudden shifts in trend
U	**Uncertainty = L**ack of predictability, which makes it hard to assess risk
C	**Complexity =** Multiplicity of issues, causes and effects, which causes confusion
A	**Ambiguity =** The haziness of reality, the potential for misreads and mixed meanings

How to deal with so many shades of gray? How can an organization develop an effective planning and management methodology in such a boundless environment? To overcome this

challenge, it is not enough just to "think outside the box", as people used to say a few years ago. The problem is more serious now, because the "box" itself, which worked as a frame of reference, is no longer. The uncertainty condition, combined with the permanent volatility of the business environment, implies the need to build a flexible company capable of responding to variations in the environment and executing its strategies with flexibility. What does flexibility mean in the context of business project management? It means the organizational capability of perceiving change, sensing risk, reacting, advancing and retreating as needed. And this organizational capability will not be developed overnight. A lot of companies confuse it with alignment and seek to reach this alignment with a couple of e-mails or over a few meetings. Alignment can be dangerous, if it tends to become more like groupthink, which always includes a degree of fear. This organizational capability requires diversity, engagement and independence. Of course this team skillset only works under the right leadership, which in turn requires the help of appropriate project governance tools.

According to Bregman, in his acclaimed article "Execution is a People Problem, not a Strategy Problem ", the author highlights the difficulties of moving forward in the execution stage following the strategy decision by the company. Once objectives are decided upon, the time comes to effectively align resources in time and space for the most complex phase: strategic execution. Numerous articles refer to the difficulty of maneuvering resources into position with speed and synergy, especially when the environment presents sudden changes. In the 21st century, this situation became a rule. Kaplan and Norton (1996, 2001, 2004) wrote about *balanced scorecards*, strategic maps, and strategic execution paths. The *Balanced Scorecard*, in its initial version, was received as a reporting revolution in the business environment because it went beyond traditional financial statements. But while these tools are indeed a relevant part of the set required, the challenge of executing strategies over time with limited teams and scarce resources still calls for more. How to deal with change, while simultaneously directing and redirecting people, managing time, and optimizing resources? In this perspective of governance and *accountability* for the execution of deliberate and emerging strategies, this article aims to discuss the main benefits provided by the methodology of Portfolio Management of Programs and Projects.

2. Strategy, Tactics and Project Management

Historians mention the Battle of Marathon (Greece, 490 BC) as one of the earliest documented moments in the Western world in which the full meaning of the concept of strategic planning was effectively employed. In that warlike context, it meant planning battles to win wars, and that was the *strategos*, a term that literally meant "war general". In the same military context, a tactical action typically aimed at coordinating troops to win battles, which translates into a more operational level of management. Already in this millennial distinction between strategy and tactics we can identify a parallel with some elements of the Body of Knowledge of Project Management, the PMBOK. The table below, adapted from a creation by the Gartner Organization, shows the transition between tactics (Project) and strategy (Portfolio), in the universe of Project Management.

At the top level of the organization, we have the Portfolio of Programs and Projects, which aims at the strategic effectiveness of the organization as a whole. This implies monitoring the environment and the set of premises that were adopted in the strategic planning process. At the level immediately below, we have the position of the Program, which always includes two or more projects. The combination of projects under a Program framework is best justified when there is an expectation of transversal synergy, that is, simultaneous and optimal use of tangible or intangible resources located across the organization, usually through logistic coordination and timely communication. At the most basic (tactical) level of execution, we have the Project itself, which tends to have a more specific focus, with less complexity. The Project Manager seeks to work efficiency, to meet deadlines, and to save as much resources as possible while achieving his goal.

Figure 2: Based on a Gartner Organization chart format

	Project	Program	Portfolio
Complexity	Single Goal: when & who, resources and costs	Complex Goal: 2 or + projects, aiming at synergy	Multiple Goals: Execution Governance
Challenge	Project Efficiency: time and cost	Cross-Organizational Coordination of Interests	Strategy Alignment with Surrounding Environment
Decision	Trade-off Decisions: cost vs. time	Allocation Decisions: people, resources, time	Prioritization & Project Paring Down Decisions
Decision Makers	Project Manager & Internal Sponsors	Cross-Functional Executives involved in projects	Shareholders, Board & Executive Team
Risk	Time Risk and Execution Cost Risk	Risk of organizational conflict, besides time/cost	Strategic Risk may affect Company Direction

3. Benefits Expected from Portfolio Management in the Execution of Deliberate and Emerging Strategies

In " *Execution: The Discipline of Getting Things Done* ", Bossidy and Charan (2002) consider strategic execution a matter in itself, with a focus on people management, accountability and milestones control over time. The authors make a comparison between Compaq and Dell in terms of their respective strategies, concluding that the former was ready to dominate the market before the latter. But it was Dell's ability to execute that made all the difference, with its purchasing and inventory control perfectly aligned with its on-demand sales policy. Thus, as the personal-computer business became a commodity business, the discipline applied by Dell to the execution of their strategy over time made it the winner. With its very high inventory turnover (80 times a year), good purchasing management and the processing of its sales backlog over time, Dell achieved a large working capital savings (in fact, zero investment, fully funded by suppliers) and, consequently, exceptional cash generation, which enabled an extremely competitive pricing policy .

Throughout his book, Bossidy and Charan emphasize the importance of *awareness* of all the elements that integrate strategic execution. For example, it is essential that the budget has its funds identified with specific lines of the Program and Project Portfolio. Without these well-established connections, the execution may suffer for investment delay or over-spending. And, taking into account that the scenario tends to change over time, the continuous re-adjustment of goals should be part of the strategy implementation review process. With no tools for recording and tracking accountability and the physical and financial milestones of execution, this becomes difficult. Kaplan and Norton (2008), in their work "*The Execution Premium: Linking Strategy to Operations for Competitive Advantage*", listed the ten steps they recommend for good strategic execution. Undoubtedly the initial tools they mention are those of their own creation - "*strategy map* " and " *balanced scorecard* " - but the need to develop a Project Portfolio Management competency in the organization is highlighted in their implementation roadmap. All of these tools - strategic maps, *scorecards,* and project management methodology - have one thing in common: they are very useful to communicate and coordinate. Especially at a time when deliberate strategies - those initially implemented - are not confirmed as valid and relevant, the organization needs intelligent communication, speedy coordination, and monitoring mechanisms to capture and interpret the dynamics of ongoing projects and decide whether the seemingly modified scenario that presents itself does require an organizational reaction towards a shift in strategic direction. The process of acknowledging and deciding upon a need for change is not without stress, not in any organization. But this reaction, if successfully accomplished, may be labeled, in hindsight, an "emerging strategy."

The emerging strategy concept (Mintzberg, Wats, 1985) was formulated at the time in contrast to what organizations usually set out to do - strategic planning - and started to execute: deliberate strategy. To the extent that a strategy is created based on scenarios and assumptions about its business environment and this environment tends to change - more or less - without notice, the probability of a strategy being initiated and terminated within a perfectly predicted scenario, with all of its initial premises intact, is rather low, tending to zero. Let's remember that retail / consumer business and oil business, to name just two examples, plan their strategies and investments within very different time frames, ranging from days to decades. For different reasons, in both cases, there is a strong likelihood of a scenario change taking place halfway along the strategic execution. In the first case, this will be due to the extreme speed of operations and market shifts. Within a week, the retail market scenario may change for a number of reasons, including a sudden advertising campaign by the competition. In the case of oil projects, the general scenario - prices, demand, volumes offered, etc. - can vary countless times along the years between the decision that was made to move forward and invest heavy sums in the project and the start date of the first oil production, usually between five to ten years from that initial date.

Therefore, any organization, public or private, must prepare to re-evaluate its deliberate strategy and the progress of its strategic execution with a time frame that reflects its activity and business dynamics. And it needs to organize this evaluation process in a structured way, within a framework of reporting tools and performance indicators that allows it to identify deviations and take reactive action, that is, to make timely decisions – to shift direction, increase/decrease resources or assess risks - at various operational and strategic levels. On the other hand, the literature suggests that many organizations still do not have this formally delineated process (JIANG; KLEIN, 1999; MORAES; LAURINDO, 2003, 2006) .In general, this process is done intuitively, resulting, in many cases, in the complete execution of projects that are not directly aligned with the objectives of the organization, which generates waste of resources and, most importantly, of time. Detecting strategic deviation and making decisions that will involve partial or total loss of the wrong investment requires organizational maturity. Reacting and moving forward without loss of time, reorganizing projects, redirecting people, and continuing to push toward building a successful emerging strategy requires more than that, requires leadership and management tools. In the article "Closing the Chasm Between Strategy and Execution", Harvard Business Review, 2013, Sundheim begins with a blunt comment:

> ... execution is a minefield. The clean and elegant logic of strategy gets dirty in the real world. Agendas compete. Priorities clash. Decisions stall. Communications breaks down. Timelines get blown. It's never a question of <u>if</u> these problems will happen. It is a question of when and to what degree.

4. Accountability Tools to Close the Gap between Plan and Implementation

Teece et al. (1997: 516) defines " *dynamic capabilities* " as an ability the organization would have to integrate, build and reconfigure competencies to meet the challenge of a rapidly changing environment. This view reflects the "VUCA" world and perfectly complements Mintzberg's theory of "emerging strategies," further emphasizing the challenge that has become the timely strategic execution. In other words, it seems very clear that organizations need competent human resources and adequate tools to enable them to work with speed at each stage of strategic execution, which has become a continuous chain of action-reaction. If the company cannot manage its decision-making process efficiently, the rapid and constant change of the environment will make the strategic execution process unviable and jeopardize the organization's own competitiveness.

The so-called "*gap* " between formulating strategies and executing these strategies over time has become commonplace in articles on Strategic Planning and Project Management. On the other hand, the introduction of a necessary bridge is not usually the focus of academic articles, appearing mostly in papers by project management *practitioners*, because strategic planning and execution stages differ significantly from one company to another, due to differences in business sector practices and

general management cultures, both being influenced by information processing technology and *software* tools.

Although the Kaplan and Norton tools are designed to clarify and communicate - certainly very important phases -, when we think about breaking down the work, appointing people to take charge, and especially when we consider the volatility that is likely to demand rapid changes in the plan and the delegation, we feel that a certain linking tool, or bridge, is lacking. On the strategic plan side, we reach the goals and know what to do, why, and how we should do it. On the opposite side of the gap, we assume that Program Management is the way to organize and manage the execution of what to do. In the middle of the gap we have the teams, presumably competent and engaged. How to distribute responsibilities so people start creating *WBS - Work Breakdown Structures* -? How to control project and sub-project work schedules? How to organize the Program Management to ensure best use of efforts to capture resource synergies?

The Ishikawa Diagram (or Fishbone) was created to analyze cause effect relationships in the context of solving a management problem. It assumes that a manufacturing problem, for example, has more than one root cause, probably a chain of causes distributed across several sectors. On the other hand, when we define an objective as something to be solved, and we define the causal relationships that must guide our actions, we can distribute those actions and related responsibilities towards the goal to be achieved or solved. But this delegation cannot be accomplished in a *top-down* manner, not if we need engagement. This delegation must be accomplished bottom up, volunteer style, with acceptance of *accountability*. *Accountability* - management responsibility for results - implies ownership and engagement, that is, the organization depends on people actually believing in their involvement with the organization. In other words, the process of delegating managerial responsibility for results is the greatest challenge of strategic execution, since it requires a voluntary commitment. And trust.

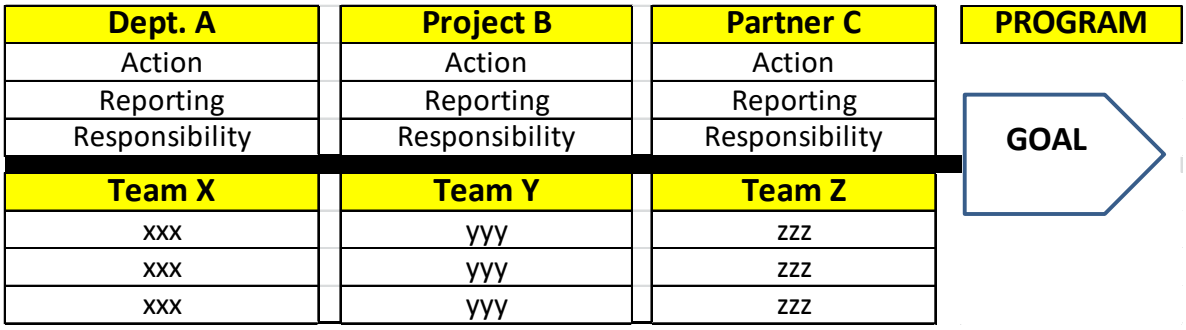
The example below shows the execution of a program, with the action chain preceding the goal. This action chain includes one company department, a project team and perhaps outsourced player. What is important in this case is that the managers of these teams have acknowledged themselves as engaged and capable of handling their share of the mission, formatted into projects. They are aware of the strategic objective built into the Program, which is part of the Strategic Execution Portfolio framework. Each A / B / C team leader will have responsibility for a project or sub-project, as the case may be.

The important thing here is to make sure that all members of the project management team are fully aware of the Program`s purpose, and feel identified with it. We cannot overestimate how hard it can be to achieve this collective commitment and how sadly illusive it can prove to be. In order to reach this degree of team engagement, no effort can be spared to ensure that good interpersonal communication is permanent and that full feedback on identified risks is always welcome, no matter how uncomfortable or abrasive these comments may sound.

The Program Manager will have transversal and total accountability for the achievement of the established goal, which includes attaining full synergy in the coordination of the efforts and resources involved, covering the entire scope of the Program. Accountability is a managerial delegation concept, demanding a high level of cross-project risk awareness with overarching responsibility for the outcome, therefore beyond standalone project efficiency. Accountability has to do with strategic effectiveness.

The teams can be recruited from anywhere in the company, or even from outside. This is an excellent opportunity to identify and develop leadership more quickly, as the nature of the project is temporary. And because the functions included in project scopes do not necessarily fit the hierarchical job descriptions within the organization, employee`s original position level becomes less relevant, which tends to generate freedom of action. In addition, the ability to perform non-routine tasks, meet deadlines, and interact with multiple players from inside or outside the company will allow potential top performers a chance to demonstrate their talent.

Figure 3: Adaptation of an Ishikawa Chart (Fishbone)



As Teece et al. (1997) have made clear, strategic execution capacity is one of the *dynamic capabilities*, that is, an important constituent element of, and - at the same time – one derived from Organizational Capital, a sum of Human Capital and Organizational Knowledge, which has become the most relevant resource to justify the market value of any organization. Most of the largest companies listed in the U.S. Stock Market are priced at several times their balance sheet net worth. One of the most prestigious authors in this field, Baruch Lev (2000) classifies Organization Capital as the "mother of all intangibles."

5. Implications for the Practice of Project Management

We have already seen that, within the framework of deliberate strategies, objectives derived from the strategic plan must be organized in the form of projects. However, execution prioritization for these projects requires a selection stage, according to the alignment that can be identified between the projects and the objectives of the organization or the undertaking (JIANG; KL EIN, 1999; PEFFERS et al., 2003). This initially perceived goal alignment between deliberate strategies and selected projects, however, may not be confirmed later. As a result of different steering mistakes, project management often suffers from deformities. In light of these deformities, the gap between intended objectives and the actual project results may soon become evident. This mismatch may also lead to digressions, giving rise to ambiguous and fruitless corrective actions.

The dynamics of strategic execution and the lack of cross-functional communication often lead to disorientation. As a consequence, the teams involved, perhaps mainly concerned with vertical efficiency, tend to resort to disparate arguments and practices to validate initiatives with confusing requirements and conflicting purposes, while employing resources with no cross synergy. The argument for better project management frequently masks organizational conflict. The alleged "technical efficiency" is adopted as a quality metric to overplay the importance of project management methodology. In contrast, technical virtues, instead of contributing to business competitiveness, become cumbersome devices that create new barriers.

When it comes to identifying the presence or absence of synergy between projects, it is necessary to evaluate cross functional interplay of teams and resources. As previously mentioned, Program Management, as an overarching structure encompassing two or more projects, tends to reduce conflicting demands and to handle resource allocation more effectively, thus avoiding the tunnel vision of vertical efficiency that is typical of the single project team.

The Portfolio Management of Programs and Projects, as an interface mechanism between the organizational strategy and the project management framework itself, helps to align and optimize the allocation of resources, enhancing benefits in the execution of deliberate and emerging strategies (CARVALHO; RABECHINI JR., 2011). Any management methodology - and the Project Management methodology does not escape this rule - works within an organizational framework. There are numerous organizational dysfunctional behavior factors that can compromise the effectiveness of the Project Management methodology. This emphasizes the need to plan for internal

execution risks in the initial phase of any project or program or in the construction phase of a PMO - Project Management Office.

In the case of executing - deliberate or emerging - strategies, we have identified some paramount internal risks derived from the project-focused approach. The typical approach to project management does not go beyond the search for efficiency and does not question whether this efficiency brings organizational value (Thomas & Mullaly 2008). With all that we know about the PMBOK (*Project Management Body of Knowledge*, published by the PMI-Project Management Institute), we realize that this methodology does not include *upstream* questioning, i.e., the originating source of what was included in the project, in addition to scope, cost and time. The analysis of background premises are definitely not part of the typical project management hands-on approach.

In any well-organized organization, public or private, the general decision-making process begins at the level of board governance, which decides upon the strategy from which most objectives are derived, and from which programs and projects are born. Project management has been most often applied to strategic execution steps involving physical products, or for established documentary purposes (Artto et al.2009). On the other hand, program management, with its theoretical foundations more complex than project management, is not exactly - or just - a bundling of projects, and the *skills* required in program management are more within the scope of action of a general manager, with an emphasis on the communication capacity and the interpersonal skills necessary to ensure, within the organization, the quality of information, resource allocation and interpersonal cooperation that are critical ingredients for managing a strategic execution segment (Artto et al. 2009; Jonas, 2010; Lycett et al, 2004).

According to the PMBOK, 5th Edition, Section 4.1.3.1, "Project Charter": The project charter is the document issued by the project initiator or sponsor that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. It documents the business needs, assumptions, constraints, the understanding of the customer's needs and high-level requirements, and the new product, service, or result that it is intended to satisfy…

To the extent that Project Charter (as defined by the PMBOK) is a generic document, applicable to all project types, internal and external, in-house or outsourced, there is a bureaucratic control bias and a tendency to just fill in the blanks, thus probably resulting in a standardized text. The literature cites cases in which the Project Charter is not even produced, for sheer lack of interest by the managers involved. In the case of strategic execution, we understand that there is a need to make the Project Charter a more robust document, starting by calling it a Program Charter, since any business strategy could hardly be executed through a single project. This way, the contribution that project management can make to the strategic execution of the organization can be significantly enhanced, and vice versa.

This expansion of the Project Charter scope should include all staff appointments, within the concept of accountability. Also, taking into consideration that group interaction dynamics are often affected by any change to the team mix, the Program delegation network needs to be revised at each instance of staff substitution, in order to ensure full engagement with *accountability.*

6. Final Words: Lessons Learned

This article aims at speculating on the main benefits that can be derived from Program and Project Portfolio Management applied to the execution of deliberate and emerging strategies, within a governance, delegation and *accountability* framework. Strategic planning steps - scenarios, assumptions, objectives, strategies, assumptions and budget - can generate all the relevant *baseline* elements to implement the strategic execution portfolio. This *framework*, by facilitating the control of the delegation of powers periodically granted to agents, becomes the best starting point for the organization's integrated governance, whether public or private. In terms of *accountability* and

reporting, the PPM (*Project Portfolio Management*), applying the *Body of Knowledge* established by PMI, is the tool with the best built-in resources for recording and controlling people, investments, decisions, changes and results throughout the strategic execution. On the other hand, it is also clear that the PPM tool, although it does not contribute to the initial quality of the strategic planning or to the definition of deliberate strategies, can contribute a great deal to the timely perception of the localized volatility in the projects. In this way, management response can become more efficient, provided that good communication is present and engagement and accountability are ensured. It must be understood that accountability and engagement will not happen by chance; these intangible organizational assets do require a robust process of program and project leadership development. Any project management development program must necessarily include a large amount of top-down respect for all participants – senior leaders or junior candidates - regardless of ongoing or upcoming projects. Everywhere, strategic delegation and program execution success depend upon these intangibles.

References

[1] ARTTO, KA, KUJALA, J., DIETRICH, P., MARTINSUO, M., 2008. What is project strategy? International Journal of Project Management, 26, 4-12.

[2] BARNEY, J. Firm resources and sustained competitive advantage. Journal of Management. V. 7, n.1, p. 99-120, 1991

[3] BOSSIDY Larry, CHARAN Ram, Execution: The Discipline of Getting Things Done, Crown Business 2002

[4] BREGMAN, Peter, Jan / 2017. Execution Is a People Problem, Not a Strategy Problem. Harvard Business Review, 2017

[5] PMBOK® Guide 5th Edition, Project Management Institute, Inc, 2013

[6] JIANG, James J.; KLEIN Gary. The missing link between systems analysts' actions and skills, 1999

[7] KAPLAN Robert S., NORTON David P. The Execution Premium: Linking Strategy to Operations for Competitive Advantage Hardcover, Harvard Business Press, 2008

[8] KAPLAN, Robert S.; NORTON, David P. Kaplan and Norton in Practice Alta Books, 2004

[9] LEV, Baruch. Intangibles: Management, Measurement, and Reporting, Brookings Institution Press, 2000

[10] LYCETT, Mark & RASSAU, Andreas & DANSON, John. 353,825 Program Management: A Critical Review .International Journal of Project Management. 2003.

[11] MORAES, Renato de Oliveira; LAURINDO, Fernando José Barbin. A case study of Portfolio management of Information Technology projects. 1999

[12] MILLER, D., & SHAMSIE, J. 1996. The resource-based view of the firm in two environments: The Hollywood film studios from 1936 to 1965 .Academy of Management Journal, 39: 519-543

[13] MULLALY, Mark; THOMAS, Janice L. Exploring the dynamics of value and fit: Insights from project management, 2009

[14] PEFFERS, K. and Y. Tang, Identifying and Evaluating the Universe of Outlets for Information Systems Research: Ranking The Journals, The Journal of Information Technology Theory and Application (JITTA), 5: 1, 2003, 63-84.

[15] RABECHINI Carvalho; JR .; KREMMEL et al. Fundamentals of Project Management: Building Skills to Manage Projects, Atlas Publishing House, 2011

[16] SUNDHEIM, Doug. Closing the Chasm Between Strategy and Execution, Harvard Business Review, 2013

[17] TEECE David J. Dynamic Capabilities and Strategic Management, 1997

[18] WACK, Pierre. Scenarios: Uncharted Waters Ahead .Harvard Business Review, 1985.