

## **Influences of Project Management on Project Success**

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**Abstract.** Project success is the most mentioned subject matter of project management, little is known about the impact of project management success on the success of projects. No matter the substantial array of project management literature and trainings to be had, project management methodologies fail to provide constant project success. For this reason, there may be a need to decode the role of correctly implemented project management methodologies on project success. This paper examines the current status of project management methodologies and their affect at the elements of project success. Despite the fact that projects are managed since historic times, a thorough literature evaluate express that the theoretical cornerstones of project management methodologies aren't but agreed upon. Project success relies upon on project management success and the success of the end-product. This represents the micro and macro angle of project success, the boundary of which evokes polarized reactions. Project success is encouraged by means of many different factors, outdoor manage of project management. This research analyses the information of project practitioners, scattered over ten countries. The accumulated records indicate that the majority of a success projects put in force, however do no longer absolutely utilize present day project management gear and strategies to their abilities. The impact of project management gear and techniques on challenge fulfillment relies upon at the practitioners' training, the timing and stage of implementation executed, whereas the human thing plays a critical element for reaching project goals. This study concludes that task management success represents certainly one of critical substances for reaching project goals, therefore, influencing project success.

**Keywords:** Project Management; Project Success; Success Elements; Success Equipment and Strategies

## **1. Introduction**

Projects have been realized considering that historical ages, which results in the idea that its theories have matured into strong practices (Al-Hajj & Zraunig, 2014). Koskela and Howell (Koskela & Howell, 2002) argued that as of yet, there may be no measurable value introduced by using enforcing high-quality practices of project management based at the perception that modern concept of project management lacks theoretical basis and is based on a little and implicit principle that calls for further improvement and enrichment. Conventional project management, however, causes self-inflicted issues impacting project overall performance negatively or worse, inflicting tasks to fail (Koskela & Howell, 2002). Current research factor in the direction of the dearth of clear definitions of project management and project success (Berssaneti & Carvalho, 2015).

No matter the good sized array of project management literature available, the complex query about the contribution of project management in the direction of project success remains unanswered. To a point, the cornerstones of project achievement acquire general agreement, whereas others have huge disagreements (Serrador & Turner, 2015). Apparently, scholars, researchers and practitioners fail to agree on the affecting of project management on project success and a variety of ground is so far to be explored.

## **2. Project and Project Management**

According to the Project Management Institute (PMI), “A project is temporary in that it has a defined beginning and end in time, and therefore defined scope and resources. And a project is unique in that it is not a routine operation, but a specific set of operations designed to accomplish a singular goal. So a project team often includes people who don’t usually work together – sometimes from different organizations and across multiple geographies”. The BS ISO 10006:1997 defines a project as: “a unique process consisting of a set of

coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including constraints of time, cost and resources” (Ochieng, Price, & Moore, 2017). Projects have unique traits and policies in assessment to operational activities (Lai, Lai, Wei, & Wei, 2017). Modern literature outlines such findings and offers enough definitions, highlighting the uniqueness of each project. Projects are makeshift organizations, set up to obtain desired objectives and goals (Berssaneti & Carvalho, 2015), ensuing in project teams had been also temporary, redundant or reassigned after the finishing touch of the project. The main disadvantage in temporary organizations is that project teams realize that their contribution is most effective required for a limited time frame. Eva et al. (Eva, Sendjaya, Prajogo, Cavanagh, & Robin, 2017) gives emphasis on the common false impression that projects are alike and argues that one of the motives why projects fail is that project managers are using the identical tools and strategies for all projects further. Projects are particular and require exceptional judgment. Therefore, it appears tough to implement a static management method able to effectively managing projects on a consistent degree because the “unique”, “particular aim” and the individual project “objectives” point in the direction of aiming at a shifting target.

Project Management Institute (PMI) gives the definition of project management as “Project management, then, is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements”. Project management practices strive of completion of the project as intended; getting it finished most efficiently by minimizing cost and obtaining outside objectives related to customer desires (Koskela & Howell, 2002). Objectives seem approachable and attainable, however, projects continue to run overdue, exceed their budgets or fail to fulfill challenge of project goals. Contemporary project management was brought at some stage in the Manhattan project within the early 50’s (Frefer, Mahmoud, Haleema, & Almamlook, 2017), but absolutely, projects have been realized earlier than that time. Its miles

universal that Henry Gantt evolved the nowadays generally used bar chart in 1916 (Weaver, 2014). Similarly review of the literature discovered that the Swiss Engineer Hermann Schuerch used a comparable tool in 1912, developing and efficiently utilizing the bar chart as a scheduling tool on a bridge project main to the completion that the inception of contemporary project management become set up approximately many years in advance than broadly perceived. Project management is a newly developed concept and therefore, its literature is incredibly young lacking in concepts and theoretical basis. It may be but argued that project management methodologies date returned as a long way as 2550 BCE and that the Pyramids were brought by following a technique offering a project charter and a business justification, included into a life cycle technique (Frefer et al., 2017). Projects are higher designed to reply to expected uncertainties, whereas project responsibilities call for appropriate planning and can be more difficult to project teams while compared to schedule work. Further, the PMBOK® guide states out that its project management mythology is most effective “applicable to maximum projects most of the time”. This leads to the questions “what” shall be used “when?” most surprisingly, those questions continue to be unanswered (Al-Nady, Al-Hawary, & Alolayyan, 2016).

Project management methodologies aren't designed to be ordinary however applicable to all projects at any given time, as they require to be adapted to individual project goals, that allows you to gain consistent project management success. Therefore, it seems that either PM methodologies are wrongly implemented or project management does not directly have an impact on the success of projects.

### **3. The Success of Project Management**

The utmost motive of implementing project management practices is to obtain consistency in project success. There may be no agreed definition of project success, which only further complicates the success of such. Table 1 indicates a

precise of the literature at the standards of success for management of projects. The experience of the project supervisor directly affects the achievement of projects (Baptista, Santos, Páscoa, & Sändig, 2016).

Besteiro et al. (Besteiro, Pinto, & Novaski, 2015) spotlight that project management has its position in achieving project success, but numerous different elements beyond the monitoring of project management, also affect project success. Schindler & Eppler (Schindler & Eppler, 2003) argue that project management does not possess the power to govern time, cost or quality. These measures are traps, in basic terms to be visible as either self-created or imposed, however not often goal yardsticks. Some projects leave out all 3 parameters and are still highly successful. Additionally Dvir et al. (Sadeh, Dvir, & Malach-Pines, 2006) point out that conventional project success measures are incomplete and may be confusing. Despite the fact that all 3 constraints are met as planned, a project won't meet the sponsor requirements. Such findings lead Baccarini (Baccarini, 1999) to conclude that only the combination of project management success with product fulfillment will create project success, whereas Lim and Mohamed (Lim & Mohamed, 1999) advise that a project is only successful when reaching its targets. Generally, project success is perceived as a single degree, either the project turned into a success or it failed. Lim and Mohamed (Lim & Mohamed, 1999) brought the micro and macro attitude that looks at project success from an exceptional angle. The micro view focuses and assesses project management success at project completion, while the macro attitude incorporates the operational issue of projects and concentrates on long-term client satisfaction (Sadeh et al., 2006). This sort of concept is an analog to De Wit's (De Wit, 1988) distinction between project success and project management success. De Wit (De Wit, 1988) highlights that project success is measured against the general project goals following project completion.

Table 1. A summary of project success parameters

<b>Project Success Criteria</b>	(Booch, 1996)	(Wateridge, 1998)	(A. J. Shenhar, Dvir, Levy, & Maltz, 2001)	(Cooke-Davies, 2002)	(Belout & Gauvreau, 2004)	(Raymond & Bergeron, 2008)	(Ika, 2009)	(Besteiro et al., 2015)
Quality of Project management process			X	X		X	X	
Within time	X	X	X	X	X	X		X
Within budget	X	X	X	X	X	X	X	X
Specified quality	X	X	X	X	X	X		X
Specified service quality		X	X	X			X	X
Project stakeholder satisfaction		X	X	X	X	X	X	
User satisfaction	X	X	X	X	X	X	X	X
Net benefits		X	X		X	X	X	X

Although, project management success is measured at some stage in the project life cycle through the conventional performance measures. Milosevic and Srivannaboon (Srivannaboon & Milosevic, 2006) attention at the relation between challenge management and the projects final product as the new measurement for attaining project achievement, while project success isn't carried out through completing the project inside its constraints, but only after reaching end-user satisfaction (A. Shenhar, Aronson, & Reilly, 2007). Even so, this method can also intend to supply individual business effects, instead of managing project tasks effectively for obtaining successful project completion. Furthermore, different researchers spotlight that measuring success shall be carried out from the perspectives of the individual proprietor, developer, contractor, end-user as well as the general public (A. Shenhar et al., 2007). As a consequence, it's far extensively well-known that different projects can also

have individual success elements. Benser & Hobbs (Benser & Hobbs, 2007) highlights that each project might also actually have its specific set of success measures. Apparently, this complicates deriving an agreed definition of project success. Curiously, stakeholder satisfaction is normally agreed to be a precious addition to the iron triangle whereas a successful project shall also satisfy its stakeholders (Zeitoun, 1998). Kam and Müller (Jugdev & Muller, 2005) argue that if the end product of the project does no longer carry out to consumer delight, despite the fact that the project is delivered within the time, cost and quality constraints, the project appears successful from the project management angle, however the product may want to result in a failure. They similarly point out this contradiction with their declaration “The operation was a success, but the patient died”. Therefore, in simplistic terms, project success comprises major components, project management success as well as product success (Jugdev & Muller, 2005).

#### **4. Contemporary Project Management Equipment and Strategies**

There aren't any agreed definitions for the success of projects and project management and based on a research statement, there are not any established project success elements to all projects and different projects have different project success elements (Sadeh et al., 2006), resulting in that modern studies lacks in sufficient difficult evidence, for justifying the advantageous influence of project management on project success. Though, in project management, there is an emphasis on the successful application of equipment and strategies towards project tasks to obtain project goals (Bryde, 2008). Because of the wide range of different equipment and strategies, which might be relevant to different project life cycle stages, it appears of extreme significance to apply the proper tool and method at the proper time. Zeitoun (Zeitoun, 1998) shows that the impact of the equipment and strategies depends on the practitioners training as

well as the implementation procedure. Subsequently, numerous success elements relate to human-influenced elements, the so-known as soft project management and do not relate at once to equipment and method of the tough project management (Duy Nguyen, Ogunlana, & Thi Xuan Lan, 2004). Different researchers particularly Nguyen et al. (Duy Nguyen et al., 2004); Scott-young and Samson (Thamhain, 1999); partially confirm these findings. Based on a study by Thamhain (Thamhain, 1999), just only 50% of project managers are acquainted with project management equipment and strategies, whereas only 28% implement them efficiently. In a study, Al-Hajj & Sayers (Pinto & Slevin, 1988) concluded similarly that about 42% of UAE practitioners do not make use of the WBS (work Breakdown structure) in their projects and around 48% do not have an OBS (organization Breakdown structure). Although, the investigated projects acquire a success rate (time, cost and quality) of about 66%. Such findings are unexpected findings and one may also conclude that project management equipment and strategies are not at once influencing project success.

Besides, numerous research conclude (Carden & Egan, 2008; Globerson & Zwikael, 2002; Milosevic, Inman, & Ozbay, 2001; Pinto & Slevin, 1988) that properly and timely implemented project management equipment and strategies may also result in project success. It entails a sensitive decision-making method to pick out the proper tools or technique for the particular project lifecycle stage, as a way to produce the demanded deliverables. Moreover, wrongly used project management tools and strategies may trigger the inverse which could even cause project failure (Leach, 2014).

According to Milosevic et al (Milosevic et al., 2001), the project manager is completely liable for the success of the project. The project manager is in the long run accountable for developing the project execution approach, which shall align with the figure-firms number one strategy, highlighting the significance of well-trained project managers (Al-Hajj & Zraunig). eventually, Turner and Müller (J Rodney Turner & Müller, 2003) state that the title “project manager”



shall be limited to individuals, possessing professional certificates for developing more confidence and believe to principals or sponsors, all through the system of choosing competent project managers (J Rodney Turner & Müller, 2003). Similarly research endorse that competence is critical to obtain project success, but does not assure project success. Such research in part align with the micro and macro perspective for project achievement of Lim and Mohamed (Lim & Mohamed, 1999) in that project management success does not always translate into project success. Though, the competence of the project manager performs a vital function in selecting the proper equipment and strategies to provide the essential project life cycle deliverables. In conformity with Sadeh et al. (Sadeh et al., 2006) “Plans are not anything, changing plans is the whole thing”. Simply, it's far unlikely to plan each interest exactly inside the specific manner it shall be carried out. Project management practices need to deal with the ever-changing internal and external elements, influencing project success. Accordingly, it's far critical to realize the competence of the project manager. Turner and Müller (J Rodney Turner & Müller, 2003) verify this element, which leads to the realization that proper project management education is a predecessor to the top-ranked project success elements.

## **5. Relation Between Project Management and Project Success**

Project management practices, in combination with numerous different elements, have an impact on project success and not all project management equipment and strategies are immediately related to project success. Although, even an intensive literature assessment couldn't discover any efficaciously completed project, without having applied basic project management practices. As a consequence, many researchers highlight (Carden & Egan, 2008; Globerson & Zwikael, 2002; Leach, 2014; Milosevic et al., 2001; Pinto & Slevin, 1988) that effectively carried out equipment and techniques may undoubtedly contribute to

project success. Table II indicates the ranking of project success elements coming frequently in the literature.

Table 2. project success elements from different studies

Rank	(Ashley, 1987)	(Nguyen & Wu, 2004)	(Jolly, Isa, Othman, & Ahmdon, 2016)	(Toor, Muhlethaler, & Laouti, 2008)
1	Organizational planning effort	Competent project manager	Project manager's capabilities and experience	Effective project planning and control
2	Project manager goal commitment	Having adequate funding until project completion	Clarity of project scope and work definition	Sufficient resources
3	Team motivation and goal orientation	Multidisciplinary/competent project team	Organizational Planning	Clear and detailed written contract
4	Scope and work definition	The commitment to project	The use of a control systems	Clearly defined goals and priorities of all stakeholders
5	Project manager capability and experience	Availability of resources	Project manager's goal commitment	Competent project manager
6	Control system	Top management support	Project team motivation and goal orientation	Adequate communication among related parties
7	Safety	Awarding bids to the right designer/contractor	Safety precaution and applied procedures	Competent team members

The present-day literature refers to project management practices, as the summation of concepts, approaches, equipment and strategies. Besner and Hobbs (Besner & Hobbs, 2004) note the difference of applying equipment and strategies, and using usual standards and methods with the metaphor “a skilled cook can provide information about his recipe, however it miles simply looking at him in the kitchen, using his tool” (Nagreacha, 2002). Metaphor illustrates the

importance of accurate implementation of commonly available equipment and strategies, in place of common concept and methods, which might be partially also relevant in operational management. Although the conventional iron triangle appears backdated, it is still the widely agreed measure for project management success. The arguments, whether the project product success influences project success also are associated with the macro and micro perspective. But, ultimately it is not likely that a project is considered a success when the project's product encounters failure. Consequently, product success is a vital a part of project success (Jugdev & Muller, 2005).

## **6. Methodology**

This study aimed for gathering tough statistics. The literature review revealed interesting facts, assisting the conclusion that project management positively influences project success. A project can also have individual sets of success standards and elements. As a result, it's far endorsed beginning research on an international scale, for identifying a possible typical set of project success parameters.

Quantitative records become collected in a survey through a web- based questionnaire, offering 20 Questions sent to 142 selected project managers. Participants were selected based on their background, geographical region and their employment function. The quality of response acquired, by having more than 75% of the respondents occupying a managerial role, has executed the purpose of this survey. The questionnaire functions closed and five point Likert scale questions in combination with matrix ratings, based on findings from the literature review.

For the framework, the following assumptions were made:

- ✓ Effectively delivered projects make use of equipment and strategies of project management practices.
- ✓ Project failures have patterns related to techniques followed to the

implementation of project management equipment and strategies.

✓ Skilled project managers have a strong command of project management equipment and strategies, applicable to produce the project life cycle stage deliverables. As a consequence, properly trained project managers have control on project success.

Those assumptions are partially based on Turner and Müller (J Rodney Turner & Müller, 2003) conclusions that the certification of project managers is crucial for high performance. Despite the fact that, different projects have variety of success criteria or success factors while recent studies discovered that different nationalities and cultures understand project success in a different way (Benser & Hobbs, 2007).

## **7. Result Analysis**

Results from the survey display that 86.3% of the customers and 89.9% of contractors were satisfied with the work completed on projects. Taking into account that one-third of the surveyed project managers didn't preserve their projects within the iron triangle indicates that stakeholder satisfaction is perceived independently. Therefore, this finding may also suggest that project management success impacts perceived project success. As at the time of the survey, the majority (78.4%) of the projects had been still in execution – display and control stage, it is dubious that the project product success impacts the score of the stakeholder satisfaction, a finding which contradicts the statement of previous researchers (Benser & Hobbs, 2007; Besner & Hobbs, 2004; Jugdev & Muller, 2005), who extensively agree that project success is a combination of project management success and product success. furthermore, it appears that projects failing in conventional measures may additionally still satisfy stakeholders.

Most apparently, 42.9% of unhappy stakeholders are reporting their project being on time, 71.4% are in the budget and 28.6% deliver the project as in

keeping with agreement terms and conditions. Demonstrating the iron triangle of Atkinson does not always completely serve as the perfect success measurement. None of the unhappy stakeholders work for a consumer organization, whereas 50% of the respondents work for a contractor. Despite the fact that the overall result illustrates projects with satisfied stakeholders, the above noticing aligns with the reviewed project management literature. Current days, thinking about time, cost and quality, as number one success measures appears insufficient to assess the success of a project. Therefore, as already cautioned in the literature, additional parameters shall also be considered for comparing project success. The survey findings additionally show that most people of projects respondents running on are within the planned time (66.7%), in the agreed finances (72.5%) and comply or exceed quality requirements (66.7%). The evaluation unambiguously demonstrates that around -thirds of the surveyed projects operate inside the iron triangle and obtain stakeholder satisfaction. These projects obtain the widely agreed definition of project management success. In contrary, merely 47.8% of the respondents predict their project successful completion and about 19.6% of practitioners are assured in reaching project success. Based at the respondents' evaluations, the ample funding till project completion strongly affects the success of a project. However, market or industry fluctuations, on an international scale, may have motivated such rating. Nevertheless, it is obvious that even global changes may also impact an individual project success, a finding that consolidates the micro and macro perspective of project fulfillment. Although a project does not function in a vacuum. Figure 1 shows the project success status.

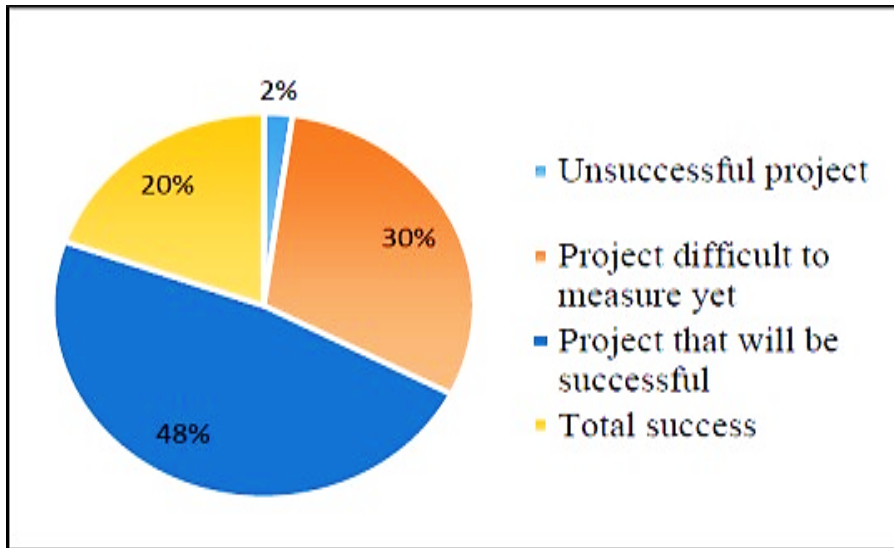


Figure 1. Project success status

### 7.1 Stakeholders satisfaction

Figure 2 indicates that, 19.6% of respondents responded with “outstanding quality – better than required.” apparently, 70% of these responses originate from Asia, in particular Singapore. although Ashley et al. (John Rodney Turner & Müller, 2005) emphasized that success is only performed with delivering “outcomes a great deal higher than desired” this does neither align with advanced high-quality management concept, nor with suitable project management practices. Wang et al. (Wang & Huang, 2006)also highlights this phenomenon in his studies before. Chinese stakeholders rate the significance of relationships over the iron triangle as an evaluation for project success. Also Shenhar et al. (A. J. Shenhar & Dvir, 1996) rank stakeholder satisfaction before time, price and quality. Such practice may not be recommended by some expert establishments and be coined as “gold plating”. A project supervisor shall not provide extras to clients and shall only provide what's important to satisfy the project goals. The reaction to this question could partially indicate that Asian

stakeholders attempt to foster relationships by means of going beyond the contractual agreed liabilities. Despite the fact that, 47.1% of the participants return their projects as in keeping with agreement terms and condition (see Figure 2).

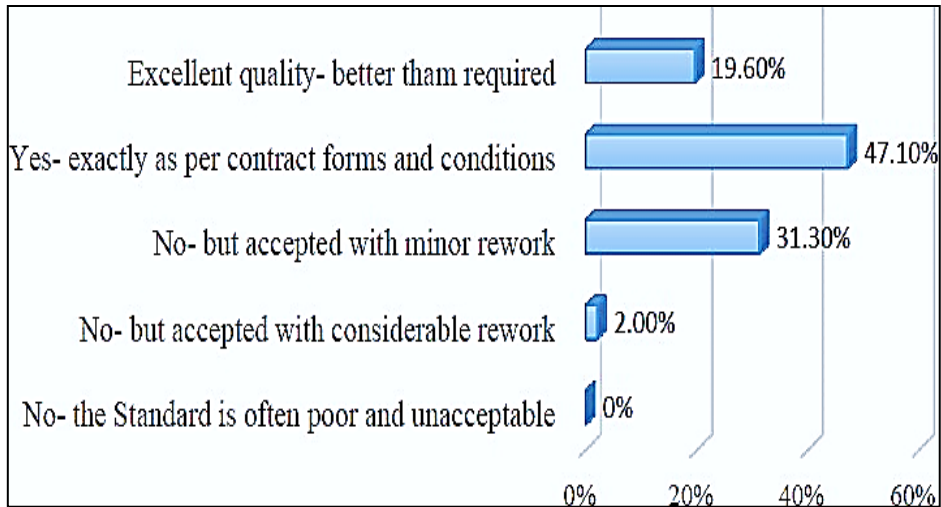


Figure 2. Project quality standards compliance

## 7.2 Project manager expertness

Fig. 3 indicates that Competence as a criteria of project managers is the most critical criteria of an excellent project manager. This finding contradicts what Turner and Muller (Turner & Müller, 2005) who concluded that, there may be no effect of the management attitude and competence of the project manager on project goals fulfillment or success.

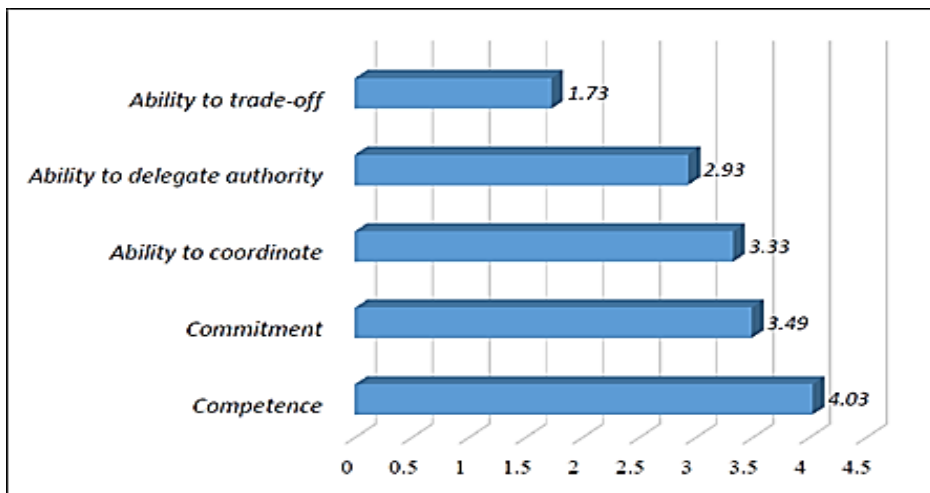


Figure 3. Criteria of project managers

### 7.3 Characteristics of project management

A capable project manager should have a proper training as well as a professional certificate (Turner & Müller, 2005). Exceedingly, 60.9% of respondents stated that they do not have proper project management training, while only that practitioners comprehend that gaining competence may be a professional certification procedure, which round 20% have an association with a professional project management organization. Such results indicate that practitioners comprehend that gaining competence can be executed without obtaining professional schooling or through a professional certification process, which contradicts the literature. More than three-quarters of participants occupy a manager role, in which 22.2% of the respondents are senior project managers or project administrators. The age variety of the contributors is among 25 and 65 years, in which most of the people of participants (55.6%) have a Bachelor's degree or higher, with only one-third of practitioners having less than five-year project management experience. even so, the affiliation to internationally recognized project management groups reveals that most of the respondents do not have any diagnosed project management training. therefore, primarily based



at the gathered data one may state that particular project management training isn't always necessarily associated with project success. the general public of participating project managers entered the project control career through experience in place of through a professional certification method, a searching that contradicts Turner and Müller's role in that the title "project manager" will be limited to individuals, having received professional certificates (Turner & Müller, 2005).

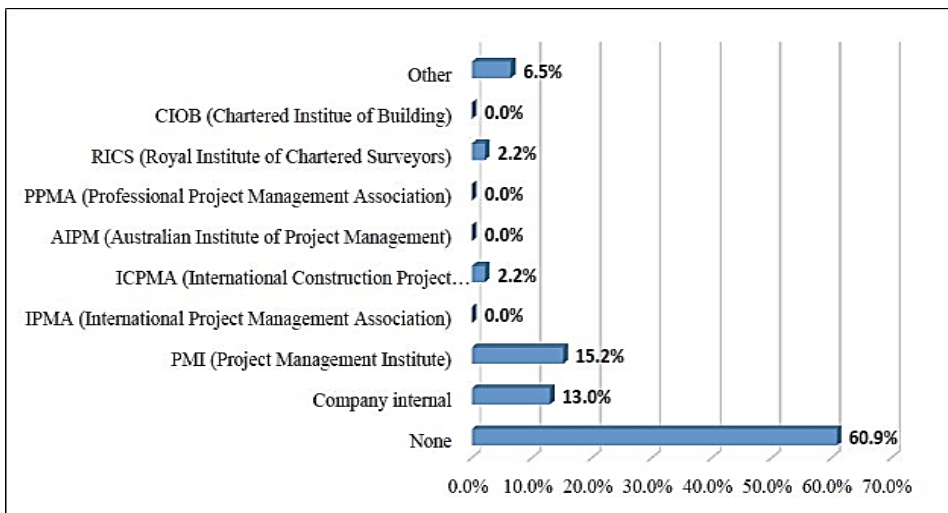


Figure 4. Characteristics of project management

The rating of equipment and strategies within the literature widely agreed that project success elements show certain similarities to the rating of this survey. effective project planning and manipulate carried out a rating of 4.78 out of 5, whereas respondents rank a skilled project manager within the top 8 success elements, indicating that there will be a universal set of factors main projects to success, see Figure. 5.



Figure 5. Project success factors from data.

Naturally, this finding contradicts with the observations of Liu et al. (Liu, 1999) and Zeitoun (Zeitoun, 1998) as they argue that individual projects might also have individual success factors (Liu, 1999; Zeitoun, 1998). Most people (78.4%) of the surveyed projects are within the execution, monitor, and control segment, which may also have restrained the responses to equipment and strategies best applicable for this project segment. nonetheless, 9.8% of the respondents, perceiving powerful project planning and manage as most important, also price Earned value analysis (EVA) as very critical, whereas 19.5% record that they not often use EVA, representing a conflict, see Figure 6. EVA is an important tool for performance measurement and manage of projects (Ogunlana, 2008). Most curiously, 16.7% do not use and 16.7% rarely use a work breakdown structure (WBS). these, in sum 33.4% of participants, rate effective project planning and manage because the most vital thing main to project fulfillment, representing another contradiction in that the WBS is of extreme importance for acting project planning and control. Moreover, the respondents rank clear targets and scope only on the sixth rank of the project success elements. A finding which partly aligns with the responses of EVA and WBS in that it seems that present day project practitioners perceive project planning and manipulate as impartial tool and technique, in place of integrated

idea, leading to the belief that practitioners do not absolutely admire project management equipment and strategies, indicating a lack of expert training of the surveyed practitioners.

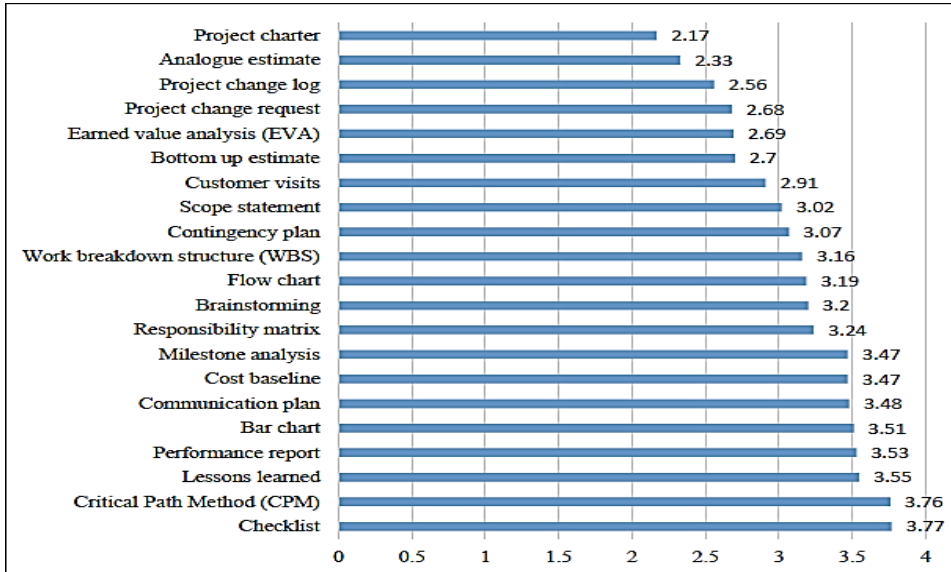


Figure 6. Use of project management tools and techniques.

## 8. Conclusion

There is a dynamic correlation between project management success and a success projects. despite the fact that, the conventional value, time and quality criteria stay because the desired method to measure projects" success it does not assure stakeholders" satisfaction.

Project success is a perceived measure, regardless of the individual success criteria and elements. None of the surveyed projects indicate the fulfillment of project success, without using project management equipment and strategies. There exists a global set of project success measures, applicable to all projects in the production industry. That is because of the reality that information gathered originates from projects scattered over ten countries. The records features considerable similarities representing a new perception whereas, the literature shows that individual projects have project particular success

measures.

Even though, records suggests that the project practitioners do not utilize project management equipment and strategies flawlessly, the huge majority of project managers enforce project management methodologies. Project management practices and strategies are widely utilized in successful projects and therefore, project management definitely influences project success. The majority of surveyed projects are successful.

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