

# **A Review on Standards, Practices and Future Prospects of Project Management in a South African Context**

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## **Abstract**

This article investigates the state of affairs of Project Management as one key discipline that is beneficial to both private and public organizations in the country. A gap analysis was conducted in reviewing the literature of published articles that are relevant to the project management's practices and standards, to gain insight with regard to what has been covered by academics in the field of Project Management. It was established that various authors consider project management as a tool that is not limited to projects but applicable strategically by different organizations in different fields, despite their uniqueness. Therefore strengthening the ability of project management practitioners through project management programs is a cornerstone in the country's economic growth and stability.

## **Keywords**

Project management practices and standard, Project management competency, competitive advantage

## **1. Introduction**

The opening statement by Jeffrey K. Pinto in his book titled Project Management (PM) – Achieving Competitive Advantage is the most critical assertion indicating the nature of the field and its importance, not only for business organizations, but also for our lives. Projects are one of the key means by which we change our world, our reality (Pinto, 2017).

Considering the above statement, it is safe to say that PM is no longer viewed as niceties because it is trend rather a discipline that is necessary for the survival of the organization (Silvius and Schipper, 2014). Moreover, organizations realize its importance in helping them handle complex undertaking and the strategic role it plays in positioning businesses in the market through the achievement of organization's goals (Rwelamila and Asalan, 2010). In as such that PM centers on managing project, its methodologies are applicable to management of organizations (Ahlemann et al., 2009). Considering the centrality of PM in contemporary organizations, the adherence of its standards becomes the 'backbone' of its effective implementation in projects (Cooke-Davies et al., 2009). Numerous organizations today engage in multiple projects at the same time, with limited resources (Svejvig and Andersen, 2015). Such authors as Cooke-Davies, T.J, Crawford, L.H. and Lechler, Y.G defend this by stating that, in the process of chasing predetermined particular goals organizations end up undertaking numeral projects (Ahlemann et al., 2009). Therefore, it is vital for a robust project manager to successfully coordinate scarce resources in the realization of numerous projects (Svejvig and Andersen, 2015). Consequently, without a doubt the process of selecting a project manager is of utmost importance (Pons, 2008). Effective execution of projects through PM is not only important to specific organizations but it does influence all industries and different countries (Hans, 2009). It is further asserted that PM plays a fundamental function in society in today's world (Rwelamila and Asalan, 2010)

With that in mind, it is to state that the inconsistent PM competence is a contributing factor in the downfall of service delivery in the public sector in South Africa (Hans and Rwelamila, 2012).

## 1.1 Background, Rationale and Scope of the Study

PM is undoubtedly a key component in making a nation stand out amongst many others of this world (Ika et al., 2010). It is evident that for any country's government, economy, education, infrastructure, healthcare system, social system, or any other sector to successfully compete at a global level, its PM capability needs to be of a global standard as well (Hans and Rwelamila, 2012). However, with South Africa experiencing at the same time first world effects as well as challenges of a developing country, PM is not performing at a global level in the country (Hans and Rwelamila, 2012). Successful completion of projects hangs in a balance not just in South Africa but also in the whole world (Ika et al., 2010), with more cases locally whereby companies experienced challenges in terms of the remuneration that organizations draw from PM. This could be caused by organizations appointing project managers who have no proper skills and knowledge in the field project management (Hans and Rwelamila, 2012) With PM being recognized as a key component in the development of nations as well as organizations contributing greatly to these nations' economies, it is imperative for academics to look into PM's state of affairs from a South African perspective. However, one may question why considering a South African perspective, and not worldwide view. This study has taken this particular interest in a South African perspective because the country is a major player on the African continent, being its first economic power. Additionally, South Africa has both characteristics of a developed country as well as developing country, which means that many economies on the African continent can by far learn from South Africa, which also applies to economies from other continents than the African continent.

## 1.2 Aim, Objectives and Value of the Study

The aim of this study is to report on an overview of the literature of the status quo of standards and practices of PM discipline in South Africa and how the profession has assisted organizations as well as the country (South Africa) to better manage different projects within the private as well as public sectors, and the competency thereof. Furthermore, the study attempts to diagnose and predicts the forthcoming happenings of the profession.

A diagnostic approach to this paper enable us to identified success factors and problematic areas with regard to PM in South Africa, which will assist in strengthening and improving the countries competitive position internationally.

## 2. Literature Review

For the purpose of this paper, it is important to define PM. Needless to say that many authors have already embarked on the mission to define it. PM is defined as a mechanism of realizing organization mission (Alvarez-Dionisi et al., 2016). This include enhancing business performance to achieved objectives (Rwelamila and Asalan, 2010), which propelled numerous organizations to focus on projects as the main business (Hans and Rwelamila, 2012). Furthermore, PM is also defined as the application of project management methodologies to achieve predetermined project aims (Ika et al., 2010). Aligning with this trail of thought, PM adds definite significance under any given circumstances (Marnewick et al., 2012).

In light of the above definition, organizations employ PM to better handle projects (Rwelamila and Purushottam, 2016) and assist in dealing with multifaceted concerns within organizations (Wells, 2012). Moreover, PM is defined as an approach that performs the four management roles (planning, leading, controlling and organizing) (Gomes and Romão, 2016) for achieving high utilization of organizational resources efficiently to influence project outcome (Rwelamila and Purushottam, 2016). It is important to indicate that PM is the application of technical knowledge and skills to robustly meet specific requirements (Pinto, 2016). This application, as indicated earlier, added to the fact that globalization has triggered private and public organizations in the world to pursue alternative ways to remain relevant (Aragonés-Beltrán et al., 2017)

Table 1. Summary of the Evolution of Views on Project Management (PM)

FORMER VIEW		CONTEMPORARY VIEW
PM will involve additional people and overheads.	→	PM allows achievement of goals with fewer resources
PM can lessen the lucrativeness of the project	→	PM increases Revenue
PM provides more unattainable goal	→	PM provides a platform to achieve project and organizational goals
PM constructs Organizational unsteadiness and conflicts	→	PM provides a more efficient and effective organization.

PM disregards customers' needs	→	PM allows organizations to meet and exceed customers' needs
PM will create more difficulties	→	PM provides problem solving technique
PM provides narrow benefits	→	PM provides multiple benefits to the organization
PM will create quality difficulty	→	PM provides improved quality
PM will create problems of authority and unnecessary energy outgoing	→	PM reduces the effort required to employ a certain function
The focus of PM is only on the sub-optimization of the project	→	PM allows employees to make better decisions.
The cost of PM may turn the prices of products uncompetitive	→	PM will increase our business competitive advantage

It is further affirmed that PM is a field that is worth exploring to consolidate activities, resources and people to remain competitive (Schwalbe). In addition, PM has its trace in every individual work, industry and country in the world (Baptista et al., 2016). Therefore the successful implementation of PM can be likely be short, medium and long term (Radujković and Sjekavica, 2017). PM is not just an approach for professional proficiency. It can further be a helpful tool for managing activities such as personal undertakings: planning a family vacation, obtaining a university qualification, or even preparing dinner, amongst other things (Baptista et al., 2016). Various organizations making use project management in their practices assert to have (a) better mechanism to manage they resources, (b) increase customers satisfaction, (c) lesser time for development, (d) Low costs, (e) High quality and consistency, (f) increased profit, (g) Better productivity, (h) enhanced coordination and (i) High employee morale (Baptista et al., 2016). A summary of the evolution of views of project management methodologies is shown in Table 1 (Aragonés-Beltrán et al., 2017). The Webster's New World dictionary sums up all the definitions of PM as proposal of something to be done; plan; scheme. It goes further defining PM as an organized undertaking; specif., a) a special unit of work, research, etc., as in school, a laboratory, etc., b) an extensive public undertaking, as in conservation, construction, etc. (Marcelino-Sádaba et al., 2015).

### 3. Methodology

The methodology for this article is the review of the literature as well as current trends in PM. This particular methodology is chosen in order to provide a state of affairs of PM in South Africa. Thirty articles were selected from academic journal publications covering from the year 2007 to 2017. The articles were selected based on the relevance to the standards and practices of project management particularly in South Africa.

The research questions related to this study were (1) What is the employability of project management status quo in the country? (2) What project management certification is for practitioners in South Africa?

Research articles were evaluated and summarized to have a clear framework and further understanding of the overview of the standards and practices of PM from the perspective of various researchers. A gap analysis was conducted that consisted of problem investigated, variable examined, methodology followed, findings, and context of study as well as area of future study of 36 articles published between 2007 – 2017. A summary of the gap analysis is contained in Table 2. Below is a detailed breakdown followed in order to conduct the gap analysis:

- **Problem investigated:** the problem that the researcher(s) were investigating in relation to project management practice.
- **Variables examined:** what factors were considered when conducting the research?
- **Methodology followed:** what methods did the researcher(s) used to conduct the research
- **Findings:** what have the researchers concluded in the topic in question
- **Context on study:** the focus of the study in this regard the context of the articles was in line with the practices and standards of project management particularly in South Africa and the collection of data based on the PM from various researchers.
- **Area of future study:** what area of future study did the researcher(s) identify a gap that other researchers should research about.

Table 2. Summary of the Gap Analysis

Problem Investigated	Paper Details	Industry
Knowledge base of Project Managers	1. Els, M., Van Der Merwe, M.F. & Hauptfleisch, A.C., "Critical Success Criteria and Success Factors in Project Management: A Quest To Enhance Generic Professional Practice" – 2012	Built Environment Project Management
	2. Robert T. Hans & Pantaleo M.D. Rwelamila, "Knowledge Base of Project Managers In the South African IC Sector" – 2012	ICT
	3. J.W. Prinsloo, C.C. Van Waveren1 & K.-Y. Chan, "Factors That Impact Knowledge Dissemination In Projects" – 2017	Unspecified
	4. D. Pons, "Project Management For New Product Development" – 2007	Engineering Production
	5. K. Jugdev, "Learning From Lessons Learned: Project Management Research Program" – 2005	Unspecified
Benefits of Project Management Methodologies	1. H. Wells, "How Effective Are Project Management Methodologies? An Explorative Evaluation Of Their Benefits In Practice" – 2012	Information Technology (IT) and Information System (IS)
	2. C. Labuschagne & A.C. Brentb, "Sustainable Project Life Cycle Management: The Need To Integrate Life Cycles in the Manufacturing Sector" – 2007	Manufacturing
Sustainability in Project Management	1. A.J.G. Silvius & R.P.J. Schipper, "Sustainability In Project Management: A Literature Review And Impact Analysis" – 2014	Unspecified
	2. C. Labuschagne & A.C. Brentb, "Sustainable Project Life Cycle Management: The Need To Integrate Life Cycles In The Manufacturing Sector" – 2007	Manufacturing
	3. A. Fourie And A.C. Brent, (2008). A Project-Based Mine Closure Model (MCM) For Sustainable Asset Life Cycle Management – 2008	Mining
	4. S.M.S. Adaba, L.F.B. Gonzalez-Jaen, A.P. Erez-Ezcurdia, "Using Project Management As A Way To Sustainability. From A Comprehensive Review To A Framework Definition" – 2015	Services
Challenges in Construction Project Management	1. S. Chihuri And L. Pretorius, "Managing Risk For Success In A South African Engineering And Construction Project Environment" – 2010	Engineering and Construction
	2. A.H. Memon, I.A. Rahman, M.R.A. Ade Asmi Abdu Azis, "Factors Affecting Construction Cost In Mara Large Construction Project: Perspective Of Project Management Consultant" – 2010	Construction
	3. A. Enshassi, S. Mohamed & S. Abushaban, "Factors Affecting The Performance Of Construction Projects In The Gaza Strip" – 2010	Construction
Project Management Good Practices Implemented in the Industry	1. K.E. Papke-Shields, C. Beise, J. Quan, "Do Project Managers Practice What They Preach, And Does It Matter To Project Success?" – 2009	Unspecified
	2. T. Blomquist, M. Hällgren, A. Nilsson, A. Söderholm, "Project-As-Practice: In Search Of Project Management Research That Matters" – 2010	Unspecified
	3. P.D. Rwelamila & R. Asalan, "Understanding of Project Management Good Practices by Construction Project Managers: the Case of ABCD"- 2010	Construction
Project Management Success Stories	1. B. Schmid, "Motivation In Project Management: The Project Manager's Perspective" – 2007	Unspecified
	2. K.E. Papke-Shields, C. Beise, J. Quan, "Do Project Managers Practice What They Preach, And Does It Matter To Project Success?" – 2009	Unspecified
	3. L.A. Ika, A. Diallo, D. Thuillier, "Project Management In The International Development Industry" – 2009	Aid Industry
	4. Els, M., Van Der Merwe, M.F. & Hauptfleisch, A.C., "Critical Success Criteria and Success Factors in Project Management: A Quest To Enhance Generic Professional Practice" – 2012	Built Environment Project Management
	5. A. Fourie & A.C. Brent, "A Project-Based Mine Closure Model (MCM) For Sustainable Asset Life Cycle Management" – 2008	Mining
	6. L.A. Ika, "Project Management For Development In Africa: Why Projects Are Failing And What Can Be Done About It" – 2012	International Development Project
	7. S. Chihuri & L. Pretorius, "Managing Risk for Success in a South African Engineering and Construction Project Environment" – 2010	Engineering and Construction
	8. W. Brauers & E.K. Zavadskas, "From a Centrally Planned Economy to Multi-Objective Optimization In An Enlarged Project Management the Case of China" – 2016	Project Management Multi-Objective Optimization
PM Standards, Project Management Office (PMO) and Organisation Strategy	1. T.J. Cooke-Davies, L.H. Crawford, T.G. Lechler, "Project Management Systems: Moving Project Management From An Operational To A Strategic Discipline" – 2009	Unspecified
	2. M. Aubry, B. Hobbs, D. Thuillier, "A New Framework For Understanding Organisational Project Management Through The PMO" – 2007	PMO within organisation
	3. R. Singh, M. Keil, V. Kasi, "Identifying And Overcoming The Challenges Of Implementing A Project Management Office" - 2009.	PMO within organisation
	4. F. Ahlemann, F. Teuteberg and K. Vogelsang, "Project management standards – Diffusion and application in Germany and Switzerland" – 2009	New Product Development
	5. S.J. Whitty, & H. Maylor, "And Then Came Complex Project Management (Revised)" – 2009	Complex Project Management

## 4. Discussions

The methodology for this article is the review of the PM application in organizations, which has not been limited to just projects but also achieving organizational strategic goals (Marcelino-Sádaba et al., 2015). This led to organizations in the country (South Africa) and the world to accept the PM practices as way to remain competitiveness (Rwelamila and Asalan, 2010). In support of this line of thought, it is further asserted that PM is applicable to all types of organizations whether private or public, products or services (Schwalbe,) puts it this way, the profession of PM relates to several industrial sectors (Aubry et al., 2007; Padalkar and Gopinath, 2016).

Obviously, the place of project management in organizations propelled them change the way ‘business as usual’ is conducted (Hans and Rwelamila, 2012). Lastly, it is important to highlight the nine areas of knowledge, which are important in the practice of PM, namely: (a) Project Integration, (b) Scope, (c) Time, (d) Cost, (e) Quality, (f) Human Resource, (g) Communications, (h) Risk, and (I) Procurement (Papke-Shields et al., 2010).

Geist and Myers, in the year 2007, as well as Huff together with Prybutok, in the year 2008, are in the same flow of thoughts in concluding that organizations tackle complex projects, help increase productivity and allow agility in their organizations in order to remain competitive.

In recent years, South Africa undertook immense successful projects such as 2010 FIFA world cup, Gautrain including experiencing a boom in the residential as well as commercial construction industry. It is worth mentioning that South Africa has the ability to successfully carry out projects at international standards level and practices (Chihuri and Pretorius, 2012), even if studies have proven that there is no difference between the South African and international projects (Barry and Uys, 2011; Ayopo et al., 2016), with managers less trained than their international counterparts (Rwelamila and Ssegawa, 2014). This lack of training or training below par could be because developing countries (South Africa included) in Africa are facing shortage of skilled trainers due to weak political and economic conditions (Kissi and Ansah, 2016). More authors asserts that the cause of this deficiency is because the western concepts of project management are not necessarily applicable in African countries. Therefore, it is assumed that the standards of project management are not implemented fully (Ika, 2012). Such gap can be attributed to the fact that some of these standards and practices are not flexible and adaptable to a South African environment (Ahlemann et al., 2009). This situation is simply evidenced through some of the poorly preformed projects in the country (Hans and Rwelamila, 2009). Moreover, various authors state that this is a serious challenge because the need of project managers is increasing (Ahlemann et al., 2009).

### 4.1 South African Institutions

One key opportunity to bridge this gap is through institutions of higher education, however, the majority of project management programs offered at these institutions in South Africa are somewhat shallow because the focus is not in addressing ‘social-cultural knowledge’ and they do not meet the expected requirements (Hans and Rwelamila, 2012). These, without a doubt, have a negative force on the services of the public sector in South Africa. Table 3 below contains a list of providers recognized by Project Management South Africa (PMSA) as Platinum status PM courses providers in South Africa.

Table 3. PMSA’s List of Recognized Platinum\* PM Providers

INSTITUTION	Type of Provider	Post-Graduate Qualification (YES/NO)	Longest Training Duration
1. AllaboutXpert (Pty) Ltd	Unspecified	NO	Unspecified
2. Cranefield College of Project and Programme Management	Higher Education	YES	3 Years
3. Davis & Dean	Education Trainer	NO	5 Days
4. Faculty Training Institute	Unspecified	NO	12 Weeks
5. Nelson Mandela Metropolitan University - Business School	Higher Education	NO	1 Year
6. PM Academy	Unspecified	NO	1 Year

7. PM Ideas (Pty) Ltd	Industry training provider	NO	6 Weeks
8. ProjectPro Management Services	Registered Training Provider	NO	9 Weeks
9. Torque IT	Education Training Provider	NO	5 Days
10. Snap Snap-Tech (PTY) Ltd	Unspecified	NO	5 Days
11. SQ Data & Consulting (Pty) Ltd	Unspecified	NO	5 Days
12. USB Executive Development (Pty) Ltd	Higher Education	NO	5 Days

\*Platinum Project Management Providers are those who have been listed as the providers that have bought PMSA packages with the most benefits.

Although the institutions listed above are recognized by PMSA as PM providers at a Platinum Level, 42% of these companies are unspecified type of providers, which creates an indication of a serious lack of information.

#### 4.2 Employment Status

Project Management have recently become one of the most sought out skills in the public sector (Rwelamila and Asalan, 2010). This statement is demonstrated by how public organizations are investing large amounts into the development of PM competencies which are efforts to establish an improved relationship between project managers, project team and the projects being implemented (Wells, 2012), (Hans and Rwelamila, 2012). Even though (Silvius and Schipper, 2014) it seems as if the preferred choice of employment is still to be employed by an institution, rather than starting up one's organization, and to do internal projects for that institution (Ayopo et al., 2016). This is mainly because projects have grown to be a vital part of organizations, (Marnewick et al., 2013) and lastly project performance is largely influenced by the project manager's competency (Aubry et al., 2007). Figure 1 shows employment status of project managers employed by an organization, self-employed, employed by a consulting company and other practices, in terms of the Manufacturing sector, Mining sector, Services sector IT sector, Construction and Engineering, and Finance and Banking sector.

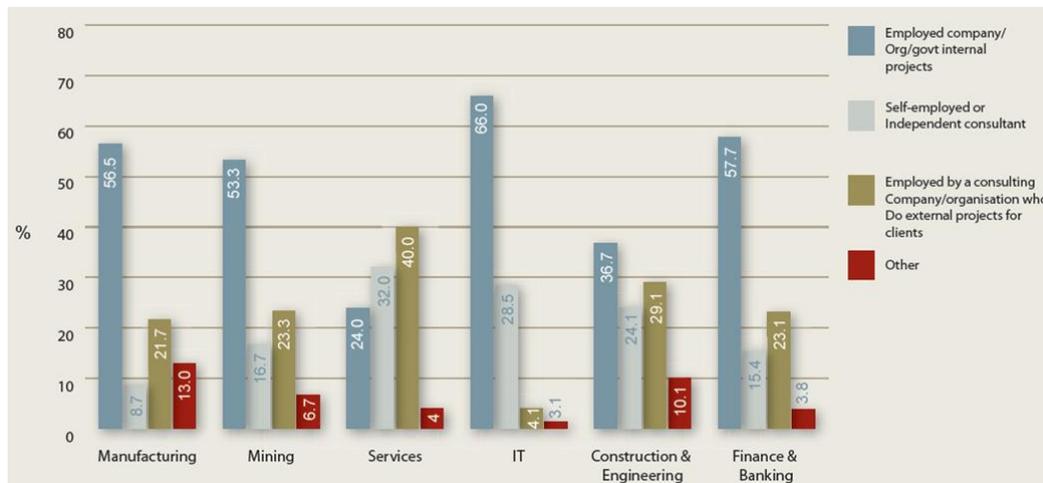


Figure 1. Status of Employment per Industry

#### 4.3 Project Management Certification

Table 4 shows the number of practicing project managers who hold certification in the IT sector, Construction and Engineering sector, Finance and Banking sector, Mining Sector, Manufacturing sector and the service sector

Table 4. Certification per Industry

Type of Certification	Industry											
	IT		Construction & Engineering		Finance & Banking		Mining		Manufacturing		Services	
	f	%	f	%	f	%	f	%	f	%	f	%
None	139	30	32	44	15	25	12	43	10	40	8	31
PMP from PMI	106	23	10	14	17	29	5	18	3	12	4	15
CAPM from PMI	21	5			2	3			1	4	1	4
PgMP							1	4				
Prince 2 *	54	12	2	3	9	15			1	4		
Certified **	31	7	1	1			1	4	1	4	2	8
APMP ***	3	1					1	4				
IT Project**	34	7	1	1							1	4
Other	70	15	27	27	16	27	8	29	9	36	10	38

(\*) Prince 2 Practitioner, (\*\*) Certified Project Manager (IPMA Level B) from IPMA, (\*\*\*) APMP (IPMA Level D) from IPMA & (\*\*\*\*) IT Project + from CompTIA

As per Table 4 above, project managers dominating in the Information Technology and Financial and Banking Sectors do not hold any certification on PM (Marnewick et al., 2013). This is because organizations embark on various projects and management most likely appoint individuals who are already on the payroll and are experienced in that particular area and not necessarily skilled or qualified project manager (Hans and Rwelamila, 2012) in other words they become project managers by default. However, there are those individuals who have specific certification for their specific industries (Marnewick et al., 2013).

Considering the temperament of PM profession as being dynamic and multi-disciplinary, it is reasonable that it requires specific competency to be executed effectively (Ika, 2009). Unfortunately, the lack of appropriate project managers open organizations to vulnerability (Ika, 2009). Competency in the field is particularly essential because one must be able to balance time, cost (budget) and quality throughout any given project (Chihuri and Pretorius, 2012; Mir and Pinnington, 2014; Brown and Adams, 2000; Bryde, 2008; Fortune et al., 2011; Müller and Turner, 2007; Turner, 2009; Wateridge, 1995). Projects within organizations are often complex, which explains a high need of project managers within organizations (Marnewick et al., 2013), however, a lack of competent project managers in the Construction and Engineering has had a negative effect on projects (Chihuri and Pretorius, 2012). Finally, only competent and qualified individual in PM should relieve this predicament of failing projects in the country (Hans and Rwelamila, 2012). This will allow project management to transform and improve poor services from the public sector (Marcelino-Sádaba et al., 2015). This, ultimately, implies the concept of project success, which does not have a universal set of success criteria (Mir and Pinnington, 2014; Westerveld, 2003).

## 5. Recommendations, Conclusion and the Way Forward

It is important to note that the training programs for project managers lack PM knowledge and practical bases (Rwelamila and Ssegawa, 2014). Therefore, it is recommended that:

- *South Africa should regard project management as an important profession and discipline.* Reviewing the need of competent project managers in the public and private sectors, proper actions should be taken in institutions to meet the need (Rwelamila and Ssegawa, 2014). This can be achieved by incorporating practical programs in these institutions' PM programs to then maximize and strengthen the skills of PM in private and public sectors.
- *The practices and standards of project management in South Africa can be developed further to tackle the position that projects take part in creating sustainable growth* (Els et al., 2012). Considering the fact that South Africa is a developing country and the leading economy on the African continent, it is critical that educational institutions, together with the industry, embark in a drive to develop and maintain PM knowledge at a global standard.
- *Project managers need to be empowered to act like entrepreneurs* by being able to identify and exploit market opportunities (Silviu and Schipper, 2014).

PM must be aligned with corporate strategies to achieve effectiveness (Rwelamila and Purushottam, 2016). Therefore according to Aragonés-Beltrán et al. (2017), who make the same recommendation by stating that it is crucial to

understand the temperament of project management and how organizational strategic goals can be addressed by PM (Aubry et al., 2007). This will lead to a new era of will of quality, excellent private and public organizations in South Africa. Project management is not limited to just managing projects, but scratches through different industries, therefore it is recommended that future studies can focus on the identifying means to bridge the gap between Project Management knowledge based and the skills required by all layers of the South African economy (Chihuri and L. Pretorius, 2012).

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