



Projectification within a developing country: The case of South Africa

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ABSTRACT

Background: Projectification is becoming a topic of interest within the project management community. Various authors discuss and debate the concept of projectification but little information is available about the level of projectification.

Purpose of study: This article addresses this gap from an emerging economy's perspective, i.e. South Africa. The research is part of an international study and allows for a systematic comparison between countries and industry sectors.

Design/Methodology/Approach: This study is based on an international study that originated in Germany. A quantitative approach was used to determine the level of projectification in South Africa and 303 participants completed the questionnaire. The results indicate a 10 percent growth in the share of project work over the next decade.

Results/Findings: The level of projectification, from a South African perspective, is comparable with that of three international studies (Germany, Iceland, Norway), with a projectification average of close to 40 percent, which is the same as Germany's 41.3 percent. The results of this research contribute to the larger body of knowledge on projectification but, more importantly, provide a benchmark for other emerging economies.

Managerial implication: Projectification is measured in terms of share of project work in relation to the total work performed by an organisation. The results from this study are comparable with those of previous studies in developed economies. The results indicate that there is no real difference between the level of project work in an emerging economy like South Africa and that of developed economies.



Keywords

Comparative study, Emerging economies; GDP; Projectification; South Africa

JEL Classification: 047

1. INTRODUCTION

Governments have used government bonds across the world as an important tool to raise funds and to influence monetary and fiscal policy. Although projects and project management have been with us since ancient times, the concept of projectification was formally recognised and documented in 1995. For millennia, projects were implemented and managed as stand-alone endeavours that formed part of a larger system (Marnewick *et al.*, 2018). With the formulation of projectification, projects were recognised as influencers of the larger system dynamics. Many benefits are attributed to projects and project management, including meeting the strategic objectives of an organisation, satisfying stakeholder expectations and optimising organisational resources (Kraus *et al.*, 2006). Through the projectification of an organisation, the organisation should in theory increase their performance, as the benefits of projects are accumulated and extrapolated.

Organisations as well as national economies should hypothetically grow if projectification is the order of the day. This hypothesis led to research into the phenomenon of projectification (Wald *et al.*, 2015; Schoper *et al.*, 2018; Ingason *et al.*, 2019). The first studies in Germany, Norway and Iceland show that the national projectification level is around 33 percent of the countries' GDP. These studies were done in developed economies, but the question is whether projectification differs in countries with emerging economies. A similar study was conducted in South Africa, which is an emerging economy. The rationale for repeating and conducting the study in South Africa was twofold: firstly, to understand the level of projectification within South African business sectors and secondly, to create a benchmark for future studies. The research also assisted in comparing South Africa's results with those of other international studies. Research on projectification has focused on the theoretical and philosophical aspects of projectification. No research had been done on the actual levels of projectification. Wald *et al.* (2015) realised this gap and created a projectification measurement which was used in the studies of Germany, Norway and Iceland mentioned above. Given this background, the purpose of this study is to:

1. Present the empirical results on the degree of projectification in South Africa.
2. Analyze similarities and differences between South Africa and other countries.

3. Discuss the findings in the light of the economic structure of South Africa.

2. LITERATURE REVIEW

Projectification was introduced into the project management vocabulary by Christophe Midler in 1995 when he reported extensively on how Renault became a projectified organisation (Midler, 1995; Aubry & Lenfle, 2012). At the heart of projectification is a change in the organisational culture on how projects are perceived and managed. Aubry and Lenfle (2012) are of the opinion that this major organisational transformation from normal project management to projectification is still a struggle that organisations experience. Projectification is not just a change in the organisational structures, but it is a “*major and profound transformation*” (Aubry & Lenfle, 2012:687). This profound transformation focuses on either the adoption or adaptation of current project structures, processes, rituals and symbols as associated with, for instance, agile (Maylor & Turkulainen, 2019). Projectification is a phenomenon that takes an organisation on a journey of increased project orientation and considers projects as a form of organising the organisation. It is not a single event that takes place, but rather an evolving journey that might span a number of years to reach a fully projectised organisation. Maylor and Turkulainen (2019) maintain that this journey fundamentally changes the orientation and design of the organisation. An example is where an organisation that was previously classified as using a functional structure changes into a project-based organisation (Meredith *et al.*, 2016).

Changing Renault into a projectified organisation started the whole notion of projectification where work is organised around groups. This phenomenon occurs irrespective of sector, type of organisation or even countries and economies (Packendorff & Lindgren, 2014). The renewed focus on projects that culminate in the drive of organisations to projectify is driven and supported by the notion that projectified organisations are more agile, flexible and innovative. This is especially the case in organisations that are technology-driven, such as financial institutions. These organisations have adopted and scaled agile in such a way that the entire structure and also the culture of the organisation have changed to be projectified (Marnewick & Langerman, 2018). At the heart of projectification is still a project that acts as an actor that has a very influential role (Aubry & Lenfle, 2012). Projects have evolved over the last couple of years from being technical (tools and methods) to being strategic in nature. This strategic nature focuses on the development of the organisation, its strategic positioning and growth (Ballesteros-Sánchez *et al.*, 2019). The rationale is that the more an organisation is projectified, the more it will achieve and realise its strategies.

Projectification can be viewed from different perspectives or levels. Jaloča *et al.* (2019) mention three perspectives, namely personal, organisational and societal. From a personal perspective, change occurs in the professional and private relationships of individual project managers. Project managers' focus changes from just managing a project and the project team to managing a product that creates benefits and contributes to the growth and profitability of the organisation. This slight nuance in the change of focus has a tremendous impact on the project manager. Where the project manager could have delivered a project and moved on to the next one without a concern for the impact of the product, the emphasis moves to accountability of the deliverable. From an organisational perspective, projectification manifests itself in organisational and management changes. This, says Midler (1995), is that a change in organisational culture is at the heart of projectification. From a societal perspective, projectification increases the importance of using projects at the level of entire societies. Each of these three perspectives can be viewed from a narrow and broad view. The narrow view of projectification investigates how projects per se influence efficiency, innovation, professionalism and patterns of work within an organisation.

The broader view is more influenced by sociology, discourse studies and critical management studies. It is particularly interested in the change that projectification brings to the project management discipline (Packendorff & Lindgren, 2014; Cerne & Jansson, 2019). Packendorff and Lindgren (2014) provide a detailed comparison of the two views based on (i) the notion of the projects, (ii) the notion of projectification itself, (iii) the theoretical perspectives and the (iv) research interests. Maylor and Turkulainen (2019) refer to these two views as “projectification of” (narrow view) and “projectification through” (broader view) and refer to them as dimensions. The projectification of dimension focuses on projects and project management itself and the influence on organisational activities over a period of time. The projectification through dimension focuses on how project leadership should positively develop into a “*suitably qualified, experienced individual or team*” that eventually improves institutional capability (Maylor & Turkulainen, 2019:568). Table 1 highlights the impact of projectification on various aspects of the individual, organisation and society.

Table 1: Two-dimensional conceptualisation of projectification

		Dimensions	
		Projectification of	Projectification through
Perspectives	Individual	Competencies; leadership style	Business leader
	Organisational	Change in structure; cultural change; patterns of work	Productivity; growth; profitability; structural organisation theory; contingency theory; strategic management
	Societal	Projects and project management as ideal and normal	GDP increase; innovation; reduced unemployment rate

Source: Authors' own analysis

Projectification touches on every aspect and level of the organisation, resulting in a different way of working. This new way of working does bring its own set of challenges. Maylor *et al.* (2006) highlight eleven issues that need to be addressed for the journey to projectification to be successful. These issues include structure, governance, communication, career management and new competencies that are required by the project team. By addressing these issues, various expectations and levels of achievements within the process of projectification need to be managed.

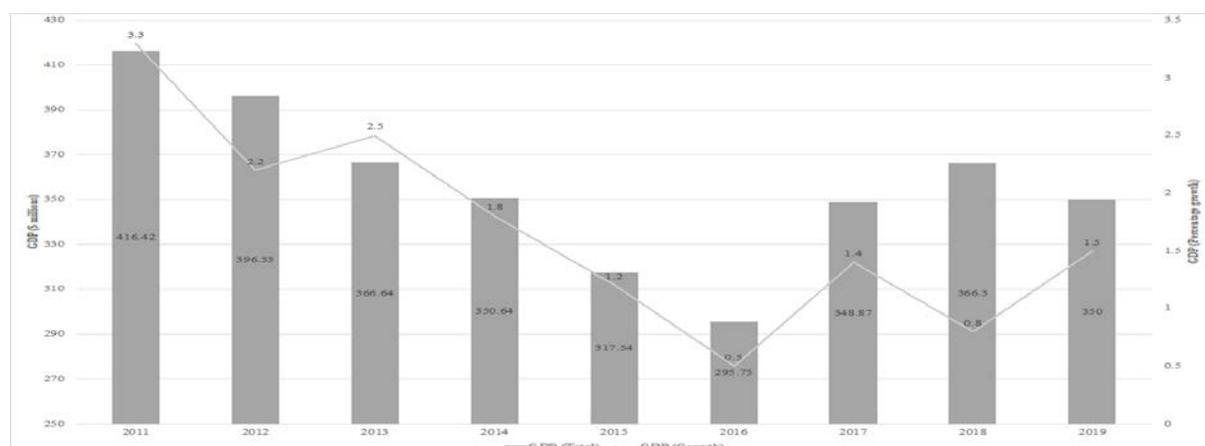
Projectification also has disadvantages. Since projects are temporary in nature, the team members may experience anxiety near the close of a project due to the uncertainty of the next project (Dinsmore & Cabanis-Brewin, 2014). Project managers might feel overwhelmed when they are managing large projects. In this projectised environment, organisations might see an increase in cost since each project is operating as an independent organisation. This independence leads to little or no sharing of resources. Myrmæl and Alfredsen (2018) in their study on the “dark side” of projectification reveal that team members have a high workload, are functioning under stressful working conditions and experience negative mental stress. Cicmil *et al.* (2016:71) add to the debate of the ‘dark side’ of projectification, stating that “*projectification exposes people to unsustainable working conditions in terms of deadline stress and overload but also contributes to their declining senses of progress, hope, and personal worthiness*”. Cerne and Jansson (2019) caution that projectification threatens any substantial knowledge and traditional fundamentals. This is a direct result of the flexibility and short-cyclical arrangements enforced by projectification.

The next section provides an overview of South Africa. South Africa is a developing country and forms part of the larger projectification study. This section provides insights into South Africa in general and the economy specifically. It is important to understand the South African context to appreciate the level of projectification from a South African perspective but within a larger international context.

2.1 South Africa

South Africa is at the southern tip of the African continent and is approximately 1 219 090 km² in size. This is slightly less than twice the size of Texas in the USA. South Africa is a middle-income emerging market with an abundant supply of natural resources and well-developed financial, legal, communications, energy and transport sectors. South Africa has a population of approximately 57 million people. At the end of 2019, the labour force was 23.1 million people, with 6.7 million unemployed people (29.1%). It must be noted that 15.5 million people are not economically active, leaving 16.4 million people working and contributing to the national fiscus. This is a mere 29 percent of the entire population contributing to the economy. In 2018, both the overall and youth unemployment rates were the sixth highest globally, with over half of all the youth without work, owing to subdued job creation thwarted by a weak private sector and compounded by lackluster economic development. As a result of limited participation in the labour market and high unemployment, South Africa's employment rate was the third lowest in sub-Saharan Africa in 2018. Figure 1 provides an overview of South Africa's GDP for the period 2011 to 2019. Of importance is the 2018 data as this was used to compare the level of projectification. It is evident that South Africa is struggling to get the economy going as the growth in GDP was just over 1 percent on average over the 5-year period.

Figure 1: GDP total versus GDP growth



Source: Statistics SA & Trading Economics

3. RESEARCH METHODOLOGY

This research forms part of a larger research project funded by the International Project Management Association (IPMA). The research project focuses largely on the extent of projectification in the national economy. Countries that have already participated in this project include German, Finland and Norway. Based on the classification of projectification as per Table 1, the focus of this research can be classified as covering both the narrow and broad view of the organisational perspective (Packendorff & Lindgren, 2014).

In order to ensure consistency and comparison between the various national studies, the measurement instrument for projectification developed by Wald *et al.* (2015) was used for this research¹. The same questionnaire was used in the other countries that formed part of the larger research project. The questionnaire consisted of the following sections: information about the organisation, the organisation's project landscape, the intensity of project work, project success and performance of the organisation. Likert scale questions were used to determine the intensity of project work (5 questions), project success (5 questions) and the company's performance (6 questions). The remainder of the questions required of the participants to capture actual figures and data.

There are two criteria that data must meet for credible results to be produced, namely being valid and reliable (Field, 2018). The assumption can be made that the results are valid as the original instrument developed by Wald *et al.* (2015) was based on literature. The same instrument was also used in three separate countries, thus confirming the validity of the instrument. From an external validity point of view, the data is believed to be generalisable. However, the findings might not be generalisable outside of organisations not involved in projects. There are several criteria for data reliability. The data must be consistent, with the same method being used to gather it, and must exhibit independence among the respondents. It must be stable, meaning that gathering more data would produce similar results, and reproducible, meaning that if the research were repeated, it would also produce similar results.

A professional research organisation (Consulta) was contracted to collect the data. This is in accordance with the similar study in Finland (Ingason *et al.*, 2019). Ingason *et al.* (2019) point out that financial limitations should not compromise the methodology of a study when professional research organisations are used. The professional research company was used because they have access to senior executives. Executives were targeted as they would be

¹ A copy of the questionnaire is available from the corresponding author.

able to provide insights into the organisation's revenue, profits and project budgets. Purposive sampling was used to identify the executives and a total of 303 valid responses were collected and used for the data analysis. These 303 responses represented 303 individual organisations within the South African landscape. Table 2 provides an overview of the responses about industry sector and number of employees.

Table 2: Cross-tabulation between industry sector and number of employees

Industry sector	Number of employees							
	1-2	3-10	11-20	21-50	51-100	101-200	201-500	More than 500
Manufacturing	0	4	0	3	2	4	5	9
Public sector/education/health care	3	6	3	4	8	3	6	34
Retail, transport, hospitality, tourism	5	5	2	2	4	1	3	9
Construction	1	5	6	1	2	1	2	2
Oil & gas	0	0	0	0	0	0	0	5
Corporate service providers	1	2	0	0	1	0	0	1
Mining industry	2	1	0	0	2	0	2	11
Financial services & infrastructure	6	4	5	2	2	1	3	21
Other services	8	8	7	3	3	1	6	13
ICT	3	1	1	3	1	2	2	9
Real estate	2	3	1	2	0	0	0	0
Fishery, forestry, agriculture	2	1	0	1	1	0	0	2
TOTAL	33	40	25	21	26	13	29	116

Source: Calculated from survey results

Most of the organisations employed more than 500 people and were in the public, education and health care sectors.

4. RESULTS

Respondents had to indicate on a 7-point Likert scale the extent to which their organisation was involved in six identified project types. Table 3 presents the ranking of the project types. The ranking is based on a weighted score. The weighted average score was calculated by multiplying each value in the set by its weight, calculating the total of all the products and dividing the products' sum by the sum of all weights. Most of the projects that organisations were involved in were research and development projects that were internal to the organisation. The lowest ranking type of project was internal information technology (IT) projects.

Table 3: Types of projects (weighted average score)

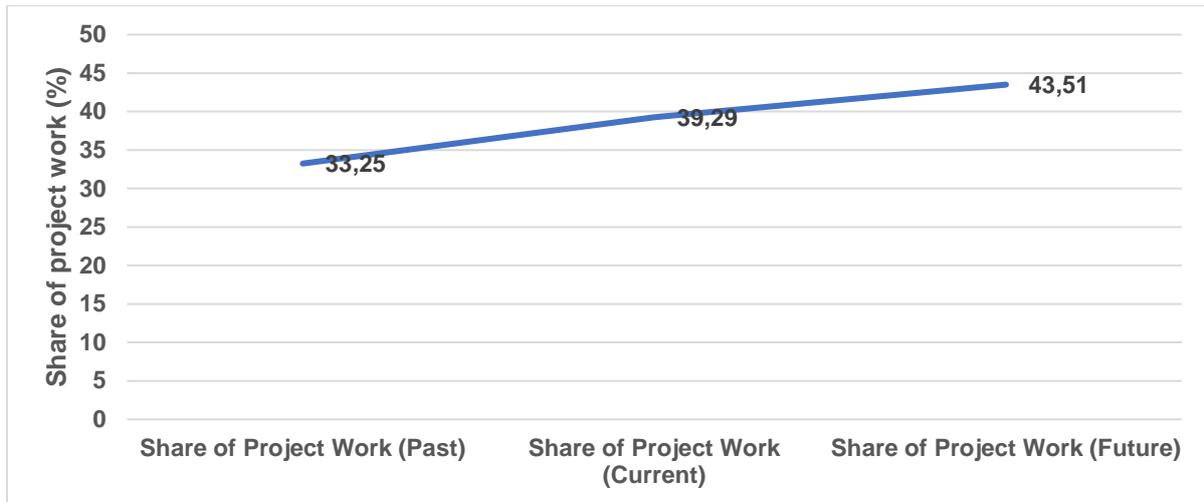
Project types	Weighted score	Rank
Internal: R&D	1312	1
Internal: Marketing	1308	2
External: Commissioned projects	1258	3
Internal: Infrastructure	1235	4
Internal: HR	1230	5
Internal: IT	1176	6

Source: Calculated from survey results

The average number of employees per project was 231, with an average duration of 7.5 months per project. The average budget per project was ZAR 2 155 301.69 million (US\$ 116 271.17 million). To determine the average number of employees, project duration and budget, outliers were removed based on the results presented in a stem-and-leaf plot generated using SPSS.

The share of project work related to the total working hours shows an increase from 2013 to 2018. The respondents were also confident that there would be an increase towards 2023. This increase can be seen in Figure 2. The initial increase in the share of the project work was 6 percent but the prediction is that this will only grow by 4 percent, i.e. a 2 percent decrease. This negative sentiment can be attributed to the slow growth of the South African GDP.

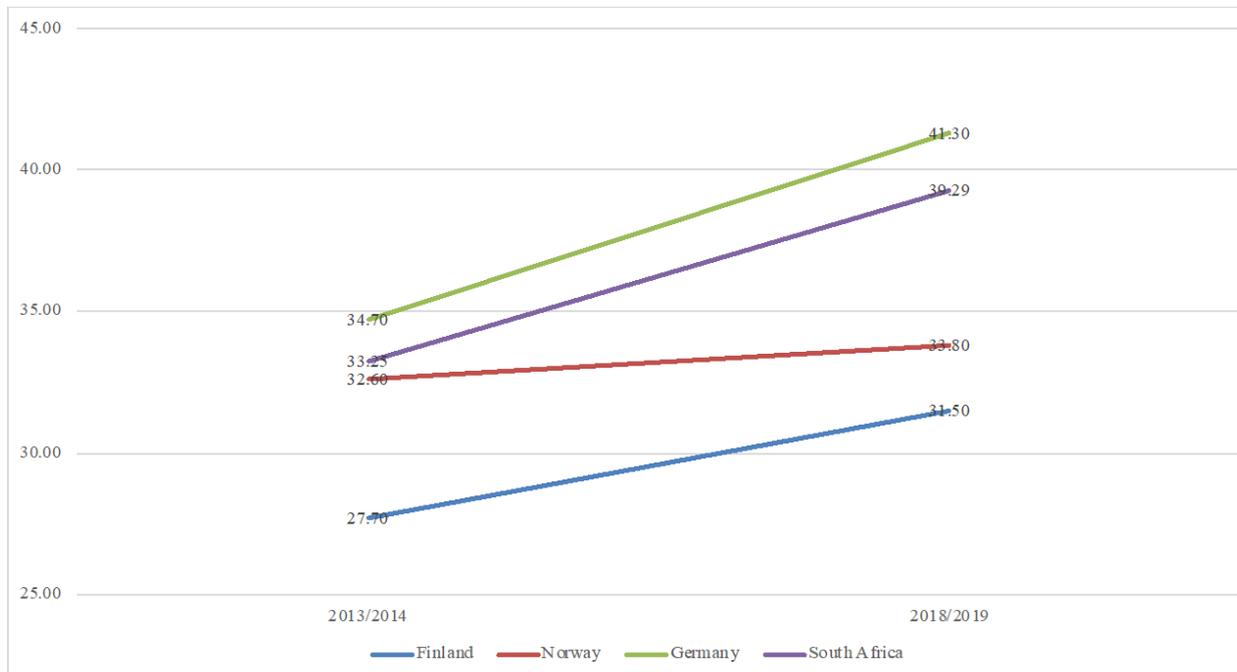
Figure 2: Share of project work (10-year view) – South Africa



Source: Calculated from survey results

When the South African situation is compared with the three other countries that formed part of the projectification study, it is evident that the level of projectification within South Africa can be favourably compared with that of Germany (Figure 3). The South African situation is better than the developed countries of Finland and Norway. South Africa and Germany had a 15 percent and 16 percent increase, respectively, in the share of project work for the period 2013/2014 to 2018/2019.

Figure 3: Share of project work (international comparison) (Schoper *et al.*, 2018)



Source: Calculated from survey results

When the share of work is compared per industry to that of Germany, Norway and Iceland, then the results indicate that South Africa is more projectified in six of the industries (Table 4). It must be noted that the oil and gas sector is included in the manufacturing sector for the European countries. The mining sector was also specifically investigated from a South African perspective as mining contributes a significant portion to the South African GDP.

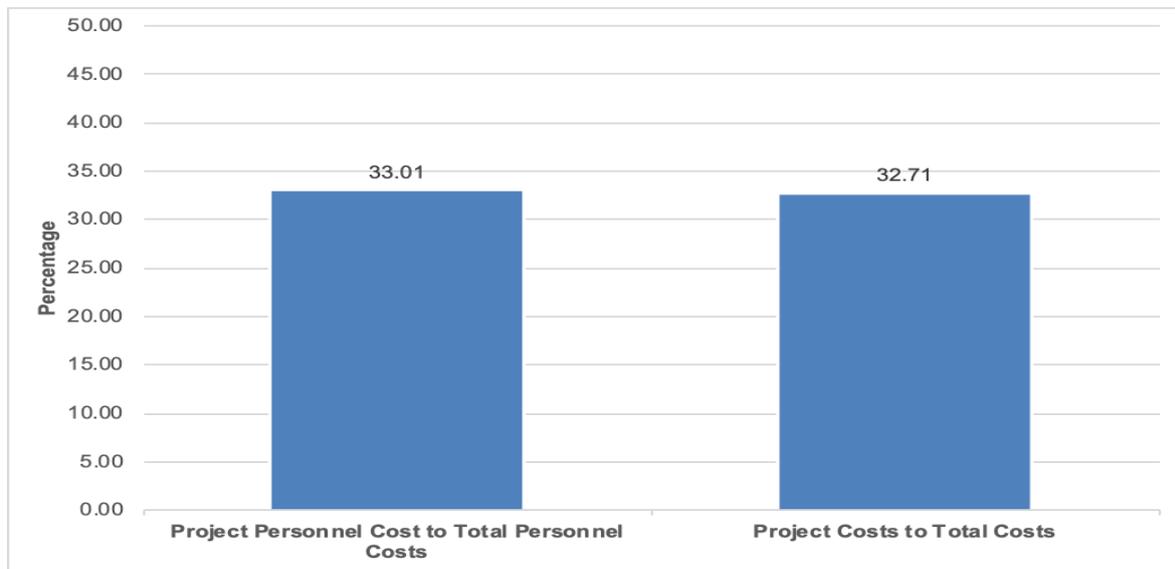
Table 2: Projectification – share of work per industry (country comparison)

Sector	Country			
	South Africa	Germany	Norway	Iceland
Manufacturing	37.2%	41.9%	47.2%	3.4%
Public sector/education/health care	35.3%	17.8%	14.2%	33.3%
Retail, transport, hospitality, tourism	32.1%	42.0%	13.4%	18.2%
Construction	64.4%	80.0%	-	80.0%
Oil & gas	34.4%	-	-	-
Corporate service providers	53.0%	60.0%	-	60.0%
Mining industry	32.0%	-	-	-
Financial services & infrastructure	33.3%	23.0%	21.4%	34.2%
Other services	48.1%	23.0%	-	42.7%
ICT	49.0%	37.7%	48.0%	47.8%
Real estate	24.9%	2.0%	-	2.0%
Fishery, forestry, agriculture	20.1%	4.0%	28.6%	4.0%

Source: Schoper *et al.* (2018)

Project personnel costs make up a third of the total personnel costs, as highlighted in Figure 4. The same is also applicable to project costs in relation to the total costs within the organisation. The emphasis of organisations is more on operational issues and keeping the organisation running rather than investing in projects taking the organisation forward.

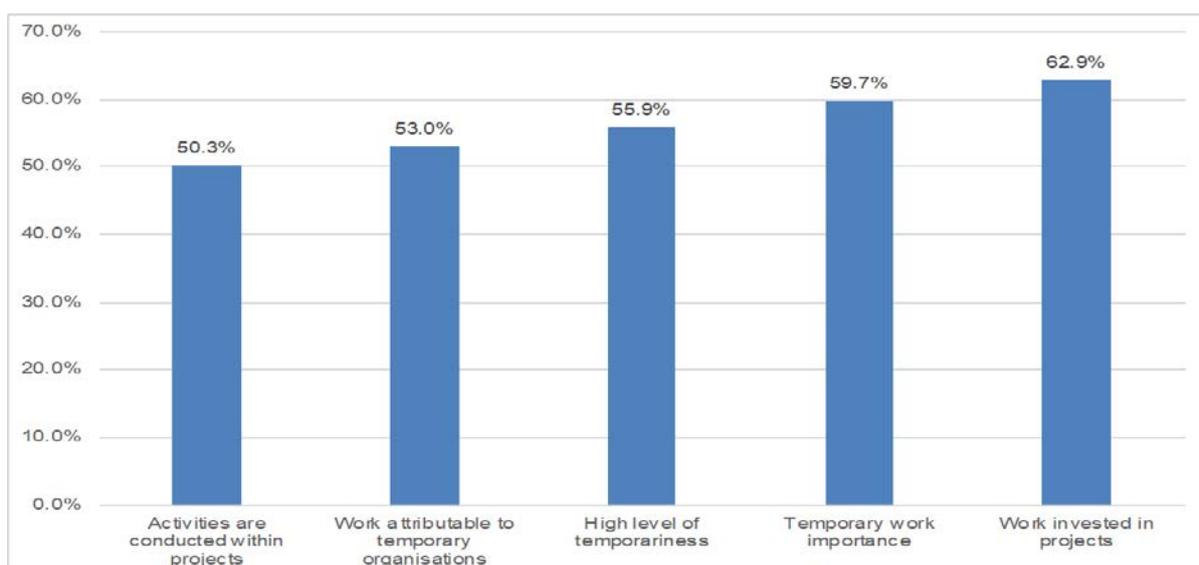
Figure 4: Project-related cost to total (South Africa)



Source: Calculated from survey results

The results in Figure 5 highlight that there is not a high level of projectification in organisations. Some 63 percent of the organisations stated that most of the work was invested in projects. This is counter to the results in Figure 4 which show that project costs were a third of the overall organisation costs. The implication is that a third of the costs resulted in almost two-thirds of project-related work and two-thirds of the costs resulted in a third of operational work. Although 63 percent of the work was invested in projects, only half of the organisations' activities were conducted within projects. This discrepancy needs further investigation.

Figure 5: Intensity of project work (South Africa)

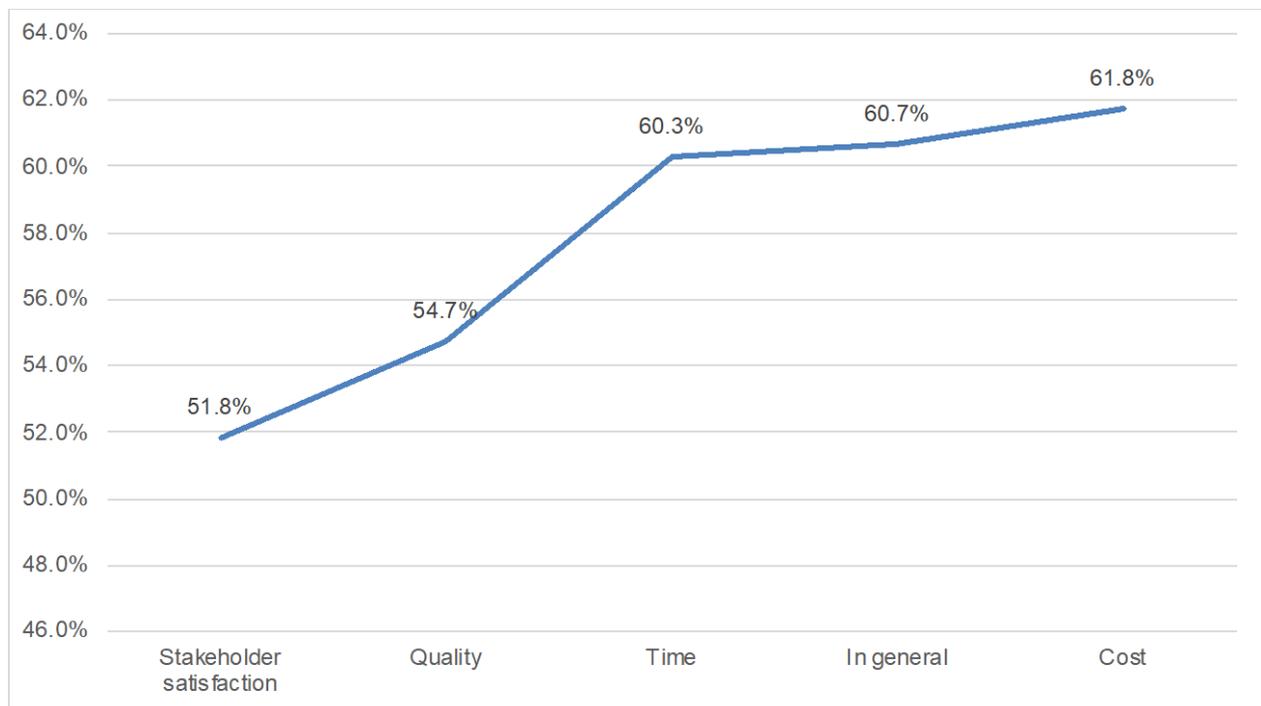


Source: Calculated from survey results

The results in Figure 5 highlight that organisations are edging towards projectification but significant organisational change is still required to become completely projectified. This speaks directly to the narrow view of the organisational perspective. Organisations are adjusting their culture and as a direct consequence, the organisational structures.

Regarding the success of the various projects within the organisation, stakeholders were not that satisfied with the final product or service delivered by the project. Only 51.8 percent of the organisations stated that their stakeholders were satisfied with the final product or service. The other success criteria underline the notion that projects are in general not that successful, as presented in Figure 6. These results are in line with previous South African studies on project success (Pretorius *et al.*, 2012; Marnewick, 2013).

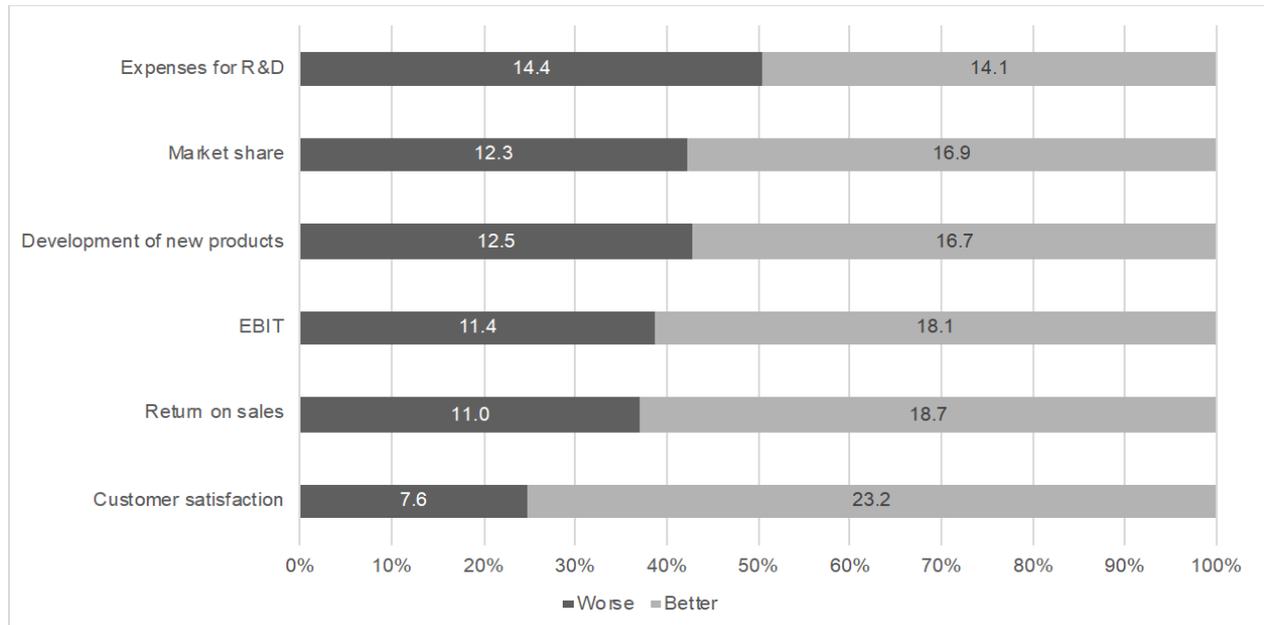
Figure 6: Project success (South Africa)



Source: Calculated from survey results

This low level of success raises the question whether the investment in projects is justified. Given the fact that ZAR 2 155 301.69 million was spent per project over a 7.5-month period involving 231 employees, shareholders as well as stakeholders should query the return on investment regarding the projects that are implemented. When the organisations were prompted about their three-year performance, the majority believed they performed better than their respective industry average. These performance criteria are highlighted in Figure 7.

Figure 1: Organisational performance (South Africa)



Source: Calculated from survey results

5. DISCUSSION

The purpose of this article is twofold: firstly, to understand the level of projectification of organisations and secondly, to determine how South Africa as an emerging economy compares with other developed economies. The South African economy is currently struggling and the average growth in GDP of 1 percent and a high level of unemployment do not ensure the continuous sustainability of the country. Capital expenditure that is realised through projects is a way to stimulate growth (Pandya, 2017; Turner & Hesford, 2018). The logic is that the higher the capital expenditure on projects, the better for the organisation and ultimately the country's economy. The 2018 share of project work (39.29%) highlights an important aspect. South African organisations have a large margin within which to play and projectify their operations. The question that needs to be answered is what the optimal ratio is between project expenditure and operational expenditure. Irrespective of this optimal ratio, it seems as if there is enough room to projectify the organisation. This said, it is noted that projectification is not an easy feat and the entire organisation's culture and processes need to change to become projectified. It is not evident from the results how mature South African organisations are in relation to projectification and this begs in-depth research into the projectification maturity levels of South African organisations.

The projectification of South African organisations has two positive spin-offs. The first is the growth of the organisation itself with regard to profitability and market share. The second is a

potential reduction in the unemployment rate. If organisations are more projectified and implementing more projects, more people should be employed, which should have a positive impact on the unemployment rate. A word of caution is that projects are temporary in nature and there will be some project members who will not be employed after the successful completion of a project (Cicmil *et al.*, 2016; Myrmæl & Alfredsen, 2018). The results indicate that organisations are forecasting a 4 percent increase in the share of project work for the next 5 years. This implies an annual increase of 0.75 percent. Whether this is enough to stimulate the South African economy remains to be seen. A concern is that this annual increase is less than the average GDP increase. The annual increase in projectification is more or less equal to that of the three European countries that are part of this research (Schoper *et al.*, 2018). There is a conundrum involving the level of projectification and GDP. Are the projectification levels low due to low GDP, or is the GDP low because of the low level of projectification? This symbiotic relationship between projectification and GDP requires more insight into the broader view of the societal perspective.

Organisations' spend on projects reflects their attitude towards projects. South African organisations spend a third of their total costs on projects, implying that two-thirds of the costs are spent on operational aspects. Given the fact that projects are used to bring innovation to the organisation and assist in its growth, it is worrisome that such a low percentage of the total costs is on projects. This relatively low level of project spend contradicts the intensity of project work that was reported by the organisations that participated in the survey. The 56 percent average measured across the five components that constitute the intensity of project work indicates that organisations are leaning towards projects and projectification. The anomaly is the percentage spend on projects versus the intensity of project work. A third of organisations' total cost is on projects, but the organisations reported that 50 percent of work was performed in projects and that 62.9 percent of the actual work was invested in projects. It is not evident from the results what caused this anomaly and further research is required.

Irrespective of the money spent on projects and the project intensity level, projects are not successful. Organisations still experience difficulties in delivering projects within the triple constraint of time, cost, and quality. Given the fact that the organisations are projectified to a certain extent, it raises the question whether projectification is a natural precursor for project success. In other words, are projectified organisations more successful in delivering projects than non-projectified organisations? The results suggest that irrespective of whether an organisation is projectified or not, there are underlying factors that need to be addressed to ensure project success. Projectification by itself does not guarantee project success and

project managers should still understand what the critical success factors are that contribute to project success. These critical success factors are not necessarily present in a projectified organisation. Overall, the organisations surveyed believed that they were performing better than their competitors in the same sector. Whether this can be attributed to the intensity of project work or better operational processes is not clear.

6. CONCLUSION

The article focused on projectification from a South African perspective. Projectification is perceived as an organisational change regarding culture, and how projects are perceived and managed. The results of 303 organisations were analysed to determine the level of projectification of South African organisations and the results compare favourably with international results. The level of projectification in South Africa is around 40 percent.

The results provide insight into various aspects. This is the first time that this research has been done in South Africa as well as in a developing country. The results presented in this study provide baseline data for future research as well as comparative research from other developing countries such as Brazil and India. The results also indicate that there is a relationship between the level of projectification and GDP, but the extent of the relationship is still unclear.

Projectification per se needs to be addressed by practitioners as well as academics. Practitioners should be aware of the benefits, challenges and impact on the culture and organisational structure. This change is not an easy one and lessons can be learned from organisations that have become fully agile. Academics also need to come to the projectification party and launch research projects that investigate projectification as a phenomenon and not as a once-off exercise.

7. MANAGERIAL IMPLICATIONS

Executive managers should invest more in projects as there is correlation between the level of projectification and South Africa's GDP. Although the extent of the correlation is not determined in this study per se, the results indicate a positive relationship. Organisations need to invest more in projects resulting in job creation and ultimately growth in the GDP. Maintenance and operations are important aspects within any organisation and neglecting maintenance causes major problems later. Organisations need to determine what is the optimal ratio between project and operational expenditure. The current level of project expenditure seems to be not enough to increase the GDP.

Although there is a push for projectification, managers need to critically evaluate each project within the organisation. Project success rates are still too low and result in wastage and non-delivery of strategies. The project's business case needs to be critically evaluated throughout the project life cycle and not just during the initiation phase. This ensures that organisations realise the benefits associated with project resulting in more projects, more jobs, higher GDP.

8. LIMITATIONS AND FUTURE RESEARCH

The 303 organisations are but a drop in the ocean and does not reflect a true version of the level of projectification in South Africa. It provides some insights from a large organisation's perspective, but the voice of smaller organisations is not reflected in this study. The study focused only on public and private organisations and excluded any governmental entities. It is thus not clear how much money is spent by the South African government on projects. Future research should be broadened to include more organisations from all spheres of the South African economy.

This research has scratched the surface of projectification and provides a glimpse of the current research on projectification. Various avenues for future research are open, but the focus should be on the two-dimensional conceptualisation of projectification. Every aspect of projectification should be thoroughly researched. Just as project success is researched on a continuous basis and new insight emerges, so should projectification be researched. For projectification to have a serious impact, research should be focused on the societal perspective. This article provides answers to the three research questions. What is not answered in this article is the impact of projectification on the personal and societal perspectives. In conclusion, future research (national and international) should focus on projectification as a phenomenon and not in isolation.

REFERENCES

- Aubry, M., & Lenfle, S. 2012. Projectification: Midler's footprint in the project management field. *International Journal of Managing Projects in Business*, 5(4):680-694. [<https://doi.org/10.1108/17538371211268997>].
- Ballesteros-Sánchez, L., Ortiz-Marcos, I., & Rodríguez-Rivero, R. 2019. The project managers' challenges in a projectification environment. *International Journal of Managing Projects in Business*, 12(3):522-544. [<https://doi.org/10.1108/IJMPB-09-2018-0195>].
- Cerne, A., & Jansson, J. 2019. Projectification of sustainable development: implications from a critical review. *International Journal of Managing Projects in Business*, 12(2):356-376. [<https://doi.org/10.1108/IJMPB-04-2018-0079>].
- Cicmil, S., Lindgren, M., & Packendorff, J. 2016. The project (management) discourse and its consequences: on vulnerability and unsustainability in project-based work. *New Technology, Work and Employment*, 31(1):58-76. [<https://doi.org/10.1111/ntwe.12058>].

- Dinsmore, P.C., & Cabanis-Brewin, J. 2014. The AMA handbook of project management (4 ed.). Amacom.
- Field, A. 2018. Discovering statistics using IBM SPSS statistics (5 ed.). London, United Kingdom. Sage Publications.
- Ingason, H.T., Fridgeirsson, T.V., & Jonasson, H.I. 2019. Projectification in Iceland measured: a comparison of two methods. *International Journal of Managing Projects in Business*, 12(3):602-616. [<https://doi.org/10.1108/IJMPB-09-2018-0203>].
- Jalocha, B., Góral, A., & Bogacz-Wojtanowska, E. 2019. Projectification of a global organization: case study of the Roman Catholic Church. *International Journal of Managing Projects in Business*, 12(2):298-324. [<https://doi.org/10.1108/IJMPB-03-2018-0052>].
- Kraus, S., Harms, R., & Schwarz, E.J. 2006. Strategic planning in smaller enterprises: new empirical findings. *Management Research News*, 29(6):334-344. [<https://doi.org/10.1108/01409170610683851>].
- Marnewick, C. (Ed.) 2013. Prosperus report - the African edition. Johannesburg. Project Management South Africa.
- Marnewick, C., Erasmus, W., & Joseph, N. 2018. Infusing African management philosophy into project management. *Acta Commercii*, 18(1):1-14. [<https://doi.org/10.4102/ac.v18i1.585>].
- Marnewick, C., & Langerman, J. 2018. Agile maturity: the first step to information technology project success. In G. Silvius & G. Karayaz (Eds.), *Developing Organizational Maturity for Effective Project Management* (pp. 233-252). Hershey, PA, USA. IGI Global.
- Maylor, H., Brady, T., Cooke-Davies, T., & Hodgson, D. 2006. From projectification to programmification. *International Journal of Project Management*, 24(8):635-734. [<https://doi.org/10.1016/j.ijproman.2006.09.014>].
- Maylor, H., & Turkulainen, V. 2019. The concept of organisational projectification: past, present and beyond? *International Journal of Managing Projects in Business*, 12(3):565-577. [<https://doi.org/10.1108/IJMPB-09-2018-0202>].
- Meredith, J.R., Mantel, S.J., & Shafer, S.M. 2016. Project management: a managerial approach (9 ed.). Asia. John Wiley & Sons (Asia) Pte Ltd.
- Midler, C. 1995. "Projectification" of the firm: the Renault case. *Scandinavian Journal of Management*, 11(4):363-375. [[https://doi.org/10.1016/0956-5221\(95\)00035-T](https://doi.org/10.1016/0956-5221(95)00035-T)].
- Myrmæl, I.E., & Alfreðsen, H.H. 2018. The "dark side" of projectification: the impact of project work on the employees' emotions. Norway: University of Agder.
- Packendorff, J., & Lindgren, M. 2014. Projectification and its consequences: narrow and broad conceptualisations. *South African Journal of Economic and Management Sciences*, 17(1):7. [<https://doi.org/10.4102/sajems.v17i1.807>].
- Pandya, B. 2017. Impact of capital expenditure on firm's financial performance: a study of select infrastructure companies in India. *NICE Journal of Business*, 12(1):75-83. Retrieved from <https://o-search.ebscohost.com.ujlink.uj.ac.za/login.aspx?direct=true&db=bsu&AN=132823377&site=ehost-live&scope=site>
- Pretorius, S., Steyn, H., & Jordaan, J.C. 2012. Project management maturity and project management success in the engineering and construction industries in Southern Africa. *South African Journal of Industrial Engineering*, 23(3):1-12. [<https://doi.org/10.7166/23-3-507>].
- Schooper, Y.-G., Wald, A., Ingason, H.T., & Fridgeirsson, T.V. 2018. Projectification in Western economies: a comparative study of Germany, Norway and Iceland. *International Journal of Project Management*, 36(1):71-82. [<https://doi.org/10.1016/j.ijproman.2017.07.008>].

- Turner, M.J., & Hesford, J.W. 2018. The impact of renovation capital expenditure on hotel property performance. *Cornell Hospitality Quarterly*, 60(1):25-39. [<https://doi.org/10.1177/1938965518779538>].
- Wald, A., Schneider, C., Spanuth, T., & Schoper, Y. 2015. Towards a measurement of "Projectification": a study on the share of project-work in the German economy. In A. Wald, R. Wagner, C. Schneider, & M. Gschwendtner (Eds.), *Advanced Project Management (Vol. 4): Flexibility and Innovative Capacity* (pp. 18-36). Berlin, Germany. GPM.