International Journal of Business and Economic Affairs (IJBEA)
6(3), 130-142 (2021)
DOI: 10.24088/IJBEA-2021-63002
ISSN: 2519-9986

Conceptualizing and Assimilating the Theme of Sustainable Project Management: A Chronological Review

MEHFOOZ ULLAH [1]*, AMMAR HUSSAIN [2], MUNIR ABBAS [3]

[1, 2, 3] Department of Business Management, Karakorum International University, Gilgit, Pakistan

Abstract: Sustainable management of corporate operations is considered to be one of the key pressing issues of the 21st century. Integration of sustainability criteria into strategy as well as corporate operations is an emergent and well-known tendency across the major industries. Nevertheless, projects have an important role to play in achieving the broader sustainable development goals, yet the academic interest in studying sustainability in conjunction with the projects has just started taking a pace. The literature on project management and sustainability varies in terms of approach, methods adopted as well as the different perspectives adopted by researchers. This review paper aims to integrate and assimilate the sequential developments in the field of Sustainable Project Management (SPM) by chronologically reviewing the relevant publications mostly over the span of the last two decades. The search results were scrutinized in three stages using an identical analytical construct approach. Using the major databases as sources, this paper presents a comprehensive review of the published literature with a specific focus on the key contributions of prominent authors in the field of sustainable project management. Major findings of the study specifically elaborate SPM as a new school of thought in project management literature, different phases in SPM research and explicitly underlines the key contributions in the field in chronological order. This study is unique in terms of its approach and methodology as the chronological reviews in the context of managing sustainability in projects are quite elusive. In terms of contribution, this study will help to further our current understanding of managing sustainability in projects by elaborating and synthesizing the existing SPM research.

Keywords: Sustainability, Sustainable project management, Chronological review, Sustainable projects

Received: 06 February 2021 / Accepted: 27 April 2021 / Published: 24 July 2021

INTRODUCTION

Growing concerns over climate change and associated problems have lead corporations to seriously consider the optimal utilization of scarce resources to fulfil their prime goal of earning reasonable profits. Therefore, it is deemed exigent to understand and duly address the sustainability challenges in all business functions and operations. Likewise, considering sustainability in managing projects is an emerging challenge that needs the attention of both researchers and practitioners (Ullah et al., 2020). Nevertheless, researchers have explored project management and sustainability in a good number of research works, yet there is found a scarcity of published literature on the assessment and application of sustainable project management in various industries (Chawla, Chanda, Angra, & Chawla, 2018). Likewise, researchers have frequently been highlighting the critical importance of managing sustainability in projects. Yet, the guidance on the integration of this novel theme in the project management literature is limited (Marcelino-Sádaba, González-Jaen, & Pérez-Ezcurdia, 2015; Sabini, Muzio, & Alderman, 2019).

The literature on project management and sustainability varies in terms of approach, methods adopted as well as the different perspectives embraced by researchers. The common feature in the major works on the subject share one thing in common which is the use of the Triple-Bottom framework. Within TBL, again, researchers kept their focus on a particular domain. For instance, some researchers explored the theme of green construction projects but limited their research scope to examining economic sustainability (Khodadadzadeh, 2016). Likewise, the publications encircling development projects explicitly reserved their focus on the integration of social factors in projects

*Corresponding author: Mehfooz Ullah
†Email: mehfoozullah@kiu.edu.pk

(A. Silvius & Schipper, 2014). Other scholars mainly outlined the relationship between project management and eco-design or the environmental aspects of sustainability (Brones, de Carvalho, & de Senzi Zancul, 2014; Knight & Jenkins, 2009). In sum, the connection between project management and sustainability is still at an embryonic stage and dedicated efforts are needed to augment this relationship with grounded theory and conceptual models from across diverse fields. Previously, scholars have conducted research on sustainable corporate practices using diverse theoretical lenses in various sectors. Yet, there is a dearth of studies on integrating and managing sustainability in projects. The existing literature on SPM is scattered, covering an array of perspectives with little or no agreement on the definition, design and measurement approaches. In this context, this study provides a strong theoretical support to the SPM literature by chronologically reviewing the literature to synthesize key literature perspectives in a generic chronological order spanning the last two decades. From a practical perspective, this study will be helpful to design more robust empirical studies in future by assimilating the previous developments with that of the modern trends in SPM research. Nevertheless, this kind of review is quite rare in existing SPM literature and it will provide a baseline for delineating the important phases, underlining the key definitional imperatives and synthesizing the diverse operational and measurement designs.

Research Objectives

The basic aim of this research is to explore the key contributions in the field of sustainable project management with a focus on the chronological order of the published literature. The individual objectives include:

1. To systematically explore the past literature on sustainable project management in a chronological order
2. To explore the new trends in SPM by delineating the important phases in SPM research
3. To provide a baseline for future research by elaborating the basic SPM definitional imperatives

METODOLGY

A structured review of the literature was conducted with a focus on the chronological order of the key publications spanning the last two decades. In a broader perspective, the search entailed keywords related to sustainable project management, green project management and corporate social responsibility in projects. The variants of the key terms included environmental sustainability in projects, social sustainability in projects etc. The research databases used were Science Direct, Emerald-insight, Taylor & Francis, web of science and google scholar. The article search process included the well-understood terms sustainable project management, corporate sustainability, sustainable corporate processes and corporate social responsibility in projects. The scrutiny of the retrieved results was done in three stages. In the first stage, the articles were shortlisted based on the criteria that they included any of the aforementioned keywords in their title. This process yielded 177 articles. In the second stage, the abstracts of all these articles were examined and only those articles were selected that included sustainable project management as the key theme or construct. The focus remained on the key point that the article wholly addresses the emerging theme of SPM and that it is contributing in terms of definition, theory-building or proposing a conceptual framework. After applying the criteria, a total of 108 articles were found closely relevant as there included the aforesaid key terms as headings. This was followed by a strict filtration procedure aimed at excluding those articles which were deemed irrelevant. The remaining articles were put through an evaluation process using an ‘identical analytical construct’ approach while keeping the focus on research aims and objectives. After reviewing the abstracts, full-text articles fulfilling the inclusion criteria were carried forwarded for in-depth investigation. A total of 56 articles were retained that fully complied with the inclusion criteria for the final-stage review. This final collection of the research articles was thoroughly reviewed by the three authors.

LITERATURE REVIEW

Sustainability: A New School of Thought in Project Management

Projects are recognized as “a way to sustainability” and it is emphasised that ‘sustainability in projects’ is being recognized as an emerging field of study. Nevertheless, this theme is gaining momentum but it is equally challenging for academia and practitioners to comprehend and manage the critically important changes induced by the sustainability criteria in project management practice and research. As the understanding on the assimilation

of sustainability and project management is finding traction, (A. Silvius & Schipper, 2014) argue that integrating sustainability stretches the system boundaries of project management. Dwelling on this argument, the authors propel the debate to the next level by proposing that sustainability should be regarded as a new school of thought in project management. This notion emerged in a structured and compelling way to justify whether or not sustainability should be considered a 'school of thought' in project management (G. Silvius, 2017). However, literature shows that this preposition i.e., 'sustainability as new schools of thought' is not an entirely new framework rather this has evolved from a series of research publications that contributed to the existing theory by reflecting upon the previous theoretical perspectives on projects and project management (Bredillet, (2008); Söderlund, 2002). The leading publications in the area of project management (Biedenbach & Müller, 2011; Bredillet, (2008); J. R. Turner, Anbari, & Bredillet, 2013; R. J. Turner, Huemann, Anbari, & Bredillet, 2010) classify the eminent schools of thought as; Optimization school, Governance School, Modelling school, Behavioural school, Success School, Decision School, Process School, Contingency School and Marketing School. Besides, the literature published in the leading academic journals of project management supplements the claim that sustainability is the most notable emerging school of thought as well as the field of active research inquiry in project management.

Table 1: Different schools of thought in project management

Schools of Thought in PM	Description	Earlier founding work
Optimization School	This school is focused on optimizing the duration and the schedule of the projects using mathematical models.	Morris (1997), Anbari (1985), (Söderlund, 2002)
Modelling School	Management of the whole system and the interactions among its constituent parts.	Williams (2002) Kwak and Anbari (2008)
Governance School	This school deals with the governance of the project as a legal entity 'and monitor the relationships between project contributors and stakeholders.	Barnes (1983), Turner & Müller(2003)
Behavioural School	Closely related to the Governance School, it considers Project as a "Social System" and pays attention to HR, conflicts, leadership, communication, and team development.	Bredillet (2004) Anbari (1985)
Decision School	The decision school focuses on processing the critical project information and the overall decision making processes as well as its impact on the project at large.	(J. R. Turner et al., 2013)
Process School	In conjunction with the Decision school, the process school views the project in terms of a structured phased process. From start to end.	
Contingency School	The contingency school keeps its focus on the individual nature of the project valuing it as a unique entity with different needs as that of other projects and emphasize that the management approach, as well as project processes, needs to be adapted accordingly.	(Söderlund, 2002), Anbari (1985)
Marketing School	Marketing school deals with the marketing of the project, to higher management as well as and "marketing by the project, linking to needs of stakeholders and stakeholder management".	(Söderlund, 2002) Bredillet (2004)

A valuable addition to this discourse was the publication of a special issue of the International Journal of Project Management on the theme of 'sustainability in project management' aimed at providing a platform for deliberating on the questions that how the changes that relate to the concerns for sustainability are changing the profession of project management? The editorial of the special issue positively established that the nexus of sustainability and project management is an emerging field of study. There was an influx of proposals from across the globe for this special theme which further confirms that this theme is gaining attention among the scholars and that a noticeable community of researchers is appearing who are interested in this theme and have published their work capturing various aspects of the topic (Huemann & Silvius, 2017). According to (Kivilä, Martinsuo, & Vuorinen, 2017) the challenges faced by contemporary human society and the corporate world regarding sustainability are critical which makes it vital to develop a sound academic knowledge base pertinent to the assimilation of sustainability concepts into the processes, methods and practices of project management. Therefore, researchers ought to focus more on the theme of sustainability in project management to further develop project management as a field of study. Furthermore, the authors emphasized that enabling sustainability in project operations is one of the most important and emerging issues of the contemporary corporate world to be addressed. This situation has ultimately influenced the viewpoint of scholars towards sustainable project management, making it a prominent theme of study (Chawla et al., 2018).

RESULTS & DISCUSSION

Defining Sustainable Project Management

Like other academic fields, the theme of SPM has been defined by several authors (Cai, jie Zhang, & Li, 2009; Deland, 2009; Tam, 2010) but these definitions aren't effective enough to capture the multidimensional nature of the SPM construct. The initials sections have explicitly outlined that the term sustainability corresponds to the popular theme of sustainable development. Figure 1 depicts the philosophy of conventional project management and SPM. Although, this emerging theme is complex and multidimensional at its core, yet it includes the basic theoretical assumptions of the Triple-Bottom-Line (TBL) approach i.e., "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Elkington, 1999). The generally accepted interpretations of TBL suggests that sustainability or sustainable development incorporates the well-being of the economy, society and environment put together as a whole distinguished concept. In organizational settings, sustainability or sustainable corporate practices are regarded as approaches that managers adopt to respond to certain social and environmental issues (Landrum & Ohsowski, 2018; Whiteman, Walker, & Perego, 2013). Therefore, the description and associated explanations of corporate sustainability are likely to be diverse. But these descriptions, principally refer to the basic TBL criteria by; considering environmental problems juxtaposed with economy and society, attending to the needs of inter-generational equity, and by promoting scrupulous working styles that transcend beyond compliance with regulations and other coercive externalities (Elkington, 1998; Sabini et al., 2019). Other than these indispensable features, there exists very little agreement on what constitutes the definition of sustainable development (Olawumi & Chan, 2018).

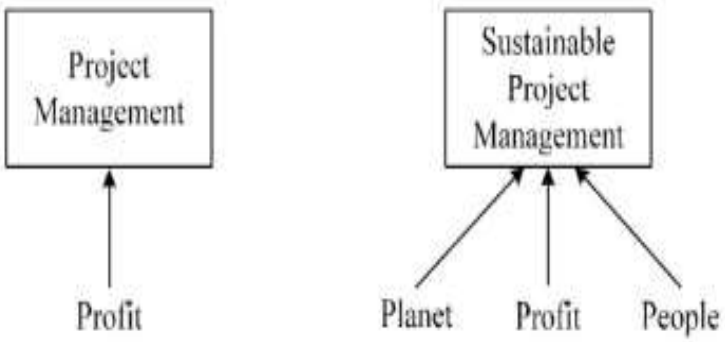

Figure 1: Philosophy of the conventional project management and SPM (Chofreh, Goni, Malik, Khan, & Klemeš, 2019)

The concept of SPM is stumbling upon similar problems as it tends to accommodate diverse theoretical perspectives i.e., project management and sustainable development. concept Nevertheless, the theme of project management is well-understood and established but the concept of SPM is in a growing phase with little consensus on operational definitions (Carvalho & Rabechini, 2017; Moehler, Hope, & Algeo, 2018; G. Silvius & Schipper, 2015). Therefore, for managing sustainability in projects, it is essential to thoroughly comprehend the theoretical integration of the two different fields and systematically link the operational aspects. Likewise, inferences can be drawn from other fields i.e., corporate social responsibility (Goel, Ganesh, & Kaur, 2019; Landrum & Ohsowski, 2018; G. Silvius & Schipper, 2015).

In a broader perspective, the extant literature on sustainability reiterates that considering sustainability criteria while managing projects substantially helps in achieving the goal of corporate sustainability. However, there exist diverse theoretical assertions regarding operational definitions of SPM. A generic and broad definition might not cover the whole theme of SPM. It is because the sustainability criteria are considered to have been impinged upon the traditional system boundaries of the project management. This necessitates that the operational imperatives should be adequately reflected while delineating the definitional limits (A. Silvius & Schipper, 2014). Hence it can be concluded that the prevailing SPM definitions are diverse yet all of them tend to reproduce the basic TBL dimensions in a more specific way (Sabini et al., 2019). For instance, in the context of the construction industry, the definitions of SPM are operationalized in terms of 'decreasing resource utilization' (Deland, 2009), reckoning for influential project externalities (Tam, 2010) and conservation of human and ecological resources (Cai et al., 2009; Hope, 2012; G. Silvius & Schipper, 2015). While, the scope of project management is well developed in both philosophy and application, the definition of SPM is in progression where its organizational implications are yet to be clarified and understood (Carvalho & Rabechini, 2017; Moehler et al., 2018). Therefore, the aforementioned considerations led us to agree on the definition of SPM proposed by (A. Silvius & Schipper, 2014) which states that, "Sustainable Project Management is the planning, monitoring and controlling of project delivery and support processes, with consideration of the environmental, economic and social aspects of the life-cycle of the project's resources, processes, deliverables and effects, aimed at realizing benefits for stakeholders and performed in a transparent, fair and ethical way that includes proactive stakeholder participation" (A. Silvius & Schipper, 2014).

The Chronological Review of SPM Research

As discussed in the preceding sections that the literature discussing the integration between project management and sustainable development is still at a nascent stage and there exists a substantial need to explore SPM from diverse perspectives. A review of the recent literature shows that SPM is relatively a new topic in project management. Nevertheless, the literature on sustainability or sustainable development has grown exponentially over the last two decades but the scenario is quite different regarding the literature on sustainability in the context of project management (Aarseth, Ahola, Aaltonen, Okland, & Andersen, 2017). Yet, there is seen an increasing number of publications on SPM over the years.

It is pertinent to mention that this study is approaching SPM research from the Tripple-Bottom-Line perspective and only those research studies have been included in this review that directly or indirectly refers to the three sustainability criteria in conjunction with project management. In this setting, literature shows diversified streams of research published over the span of the last two decades that has approached SPM from a broader perspective mostly using qualitative techniques/methodology and lesser attention was paid to quantitative framework-based research. However, the academic perspectives on SPM are still at the embryonic stage where scholars are designating much value and attention towards the theoretical assimilation of relationships interlinking both the concepts i.e., sustainability and project management (Peenstra & Silvius, 2018).

Tracking back the initial or pioneering studies on SPM, the research work of (Labuschagne, Brent, & Van Erck, 2005) was one of the preliminary studies on sustainability embedment into project management. The authors suggested that the businesses ought to consider the SPM concept as a primary business tool that might help practitioners to determine the environmental, social and economic impacts of projects on society while fulfilling stakeholder needs (Labuschagne & Brent, 2005, 2005). Likewise, (A. Silvius, Brink, & Kohler, 2009) contributed to the SPM literature by providing a basic definition which stated that "the management of project-orientated change in policies, assets or organisations, with consideration of the economic, social, and environmental impact of the project, its result, and its effect, for now, and for future generations". The study of (Gareis, 2013) emphasized

the re-thinking of initial project phases to include the principles of sustainability in the whole project life cycle. Likewise, Tharp (2012) underscored the need for project-based firms to embed sustainability agenda in project management processes and evaluate the execution risks related to social aspects in particular e.g. labour practices and human rights. Besides, the study of (A. Silvius & Schipper, 2014) was among the very first studies that attempted to delineate the boundaries of SPM and examined its implications in the traditional project management context. By reviewing key publications that relate sustainability to project management between the period 1993 to 2013, the article elucidated the operational aspects of sustainability in the project context. This article regarded SPM as a paradigm shift in project management research; from an approach characterised by predictability and controllability, towards a new approach that values flexibility, complexity and opportunity. While the notion of sustainability in project management was receiving attention from policymakers, the research on SPM was gaining momentum too, where the focus of the studies shifted from elaborating and explaining SPM, towards other angles like validating the operational significance of sustainability in project contexts. For instance, the study of (Carvalho & Rabechini, 2017) addressed the very prime and critical concern that what will happen to the project success parameters if we link sustainability essentially with the project management. Their study showed a significant positive relationship between project sustainability management and project success. Similarly, (Banihashemi, Hosseini, Golizadeh, & Sankaran, 2017) explored certain critical success factors in the context of developing countries that affect the incorporation of the theme of sustainability into project management practice. These critical success factors broadly included; the role of clients and stakeholders, envisioning the team by leadership, project manager's experience and sustainability management competencies. In a similar vein, (Mavi & Standing, 2018) also published their work on the key factors deemed necessary for the SPM implementation in the context of the construction industry, using a multi-criteria decision-making technique. The study of (Martens & Carvalho, 2017) used a survey-based design to explore SPM in information systems projects with a prime focus on determining the sustainability-capability of the project-based organizations and their staff. This important study contributed towards understanding the role of project managers and organizational capabilities in terms of incorporating sustainability in projects. This study also revealed an overriding focus of the participating information system projects on the economic aspect of sustainability as compared to the social and environmental sustainability dimensions. (Marnewick, 2017). The lesser presence of the social dimension in the context of sustainable project management can be traced back to earlier publications. For instance, (Brent & Labuschagne, 2007) brought this concern to the surface by stating that the presence of social aspects is marginal as compared to the other two dimensions of sustainability, i.e., economic and environmental dimensions, particular from the corporate perspective. Their study also highlighted the issues regarding the availability of proper information and setting a standard for social criteria in projects. The authors considered these issues quite challenging especially for quantitative research techniques and asserted that a phase-approach should be adopted for inculcating social sustainability into project management (Brent & Labuschagne, 2007). Besides, some studies focused on capturing the soft side of sustainability in project management. For instance, (A. G. Silvius & Graaf, 2018) conducted an exploratory study to identify the factors that influence the project manager's intention to proactively discuss sustainability-related issues at project board meetings. The findings revealed four major factors that were found affecting the manager's intention to take up the sustainability aspect of the project with the governing board. These factors included, moral compass and personal ability of the managers, potential benefits to be achieved, the potential risk which may disrupt the operations and the organizational fit (A. G. Silvius & Graaf, 2018).

New Trends in SPM Research

According to (Chofreh et al., 2019), the research on SPM is currently in its growth phase. In the initial stage, identified as the introduction phase, the mainstream SPM research was more attentive towards concept definition, highlighting the research significance and benefits, related issues and challenges and underlining the impact of sustainability considerations on traditional project management. This initial phase appears to be more focused on fundamental research and sets up a baseline for advanced research. The growth phase is, however, predominantly focusing on solutions such as models, basic frameworks, and design approaches to address precise problems in allied topics (Aghaegbuna, Tasmiyah, Zanoxolo, & Nikiwe, 2020). Figure 2 provides the research life cycle of project management and SPM. According to (Sabini et al., 2019), the research on SPM is growing rapidly where almost 80% of the identified literature has been published in the last five years. Accordingly, a critical review

of the recently published literature on SPM shows that most of the studies on the integration of the concepts of sustainability in projects are mostly of an interpretive nature (Chang, Zillante, Zhao, & Zuo, 2015; Sabini et al., 2019; Wang et al., 2020; Zuo, Jin, & Flynn, 2012).

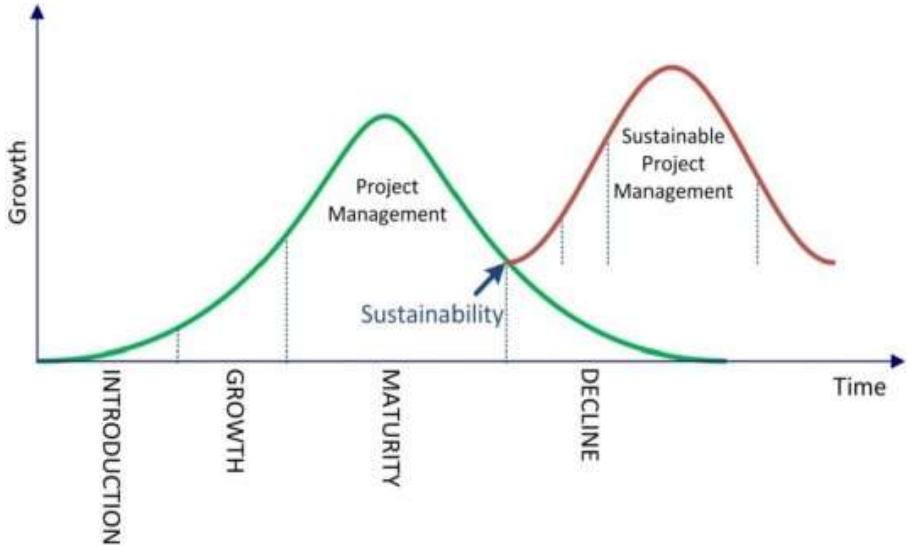

Figure 2: The research life cycle of project management and SPM Source: Chofreh et al. (2019)

These studies include systematic reviews, content analysis and qualitative case studies (Aarseth et al., 2017; Chawla et al., 2018; Li-Yao & Misopoulos, 2020; Ma, Harstvedt, Jaradat, & Smith, 2020; Sankaran, Müller, & Drouin, 2020) where the authors primarily focused on elucidating and interpreting the concepts of sustainability in the context of project management. Accordingly, these studies also recognize a research gap in terms of measuring sustainability in projects, primarily the generalizable empirical studies based on robust quantitative designs (Banihashemi et al., 2017). This trend marks the end of the 'introduction phase' in SPM research that was focusing more on fundamental research themes including concept and constructs, research significance, ontology, benefits, issues and challenges, values and impact, thus setting up the baseline for advanced research in the related fields of SPM (Wang et al., 2020).

Yet this growth phase in SPM research has received little attention from scholars and very few studies, published to date have actually attempted to conduct framework-based research using a well-grounded theory and using a consolidated construct of SPM i.e., taking the three sustainability dimensions together (Carvalho & Rabechini, 2017; G. Silvius, 2017). Among the available studies focusing on quantitative framework-based designs, the identification of external and internal enablers of SPM emerges as the pivotal theme in SPM research. Precisely, there is a scarcity of empirical studies on external and internal enablers or critical factors that influence the firms to adopt SPM practices (Aarseth et al., 2017; Abangbila, An, Fomude, Lamptey, et al., 2020; Banihashemi et al., 2017; Ofori, 2019; G. Silvius & Schipper, 2020; Zhang, Oo, & Lim, 2019). Among the available research studies, some studies have exclusively underlined the internal factors like project manager's abilities and leadership qualities (Abangbila et al., 2020; Malik et al., 2019; A. G. Silvius & de Graaf, 2019; G. Silvius & Schipper, 2020) and did efforts to understand its importance using the project managers' lens (Martens & Carvalho, 2017; A. G. Silvius & de Graaf, 2019). Whereas others have elaborated the critical role of external enablers like stakeholders, industry context, governments and the governance systems for integration of sustainability aspects in project management (Banihashemi et al., 2017; Brooks et al., 2019; Chofreh et al., 2019; Hueskes, Verhoest, & Block, 2017; Misopoulos, Michaelides, Salehuddin, Manthou, & Michaelides, 2018). Nonetheless, the extant literature lacks studies on the interplay between external and internal enablers of SPM as the vast majority of these research endeavours are systematic literature reviews and context-specific qualitative (case) studies, hence missing substantial quantitative data aimed at generalizing the core research findings that will lead to inferences drawn for wider usage (Sabini et al., 2019). The second important aspect is that the research on SPM is being reported predominantly from developed countries and very little is known so far about the SPM practices in developing countries (Goel et al., 2019).

Accordingly, research articles being published in leading journals are coming from developed countries with little research input from developing countries. According to (Aghaegbuna et al., 2020), there is a dearth of context-specific information on SPM that is specifically focused on emerging economies/developing countries of the world. This perspective is more pertinent in construction projects as the developing countries are known to

be facing strains by exigent needs of development, but due to constrained economies, the sustainability aspects are being undermined (Aghaegbuna et al., 2020; Banihashemi et al., 2017). Therefore, there is a need to fill this gap with context-specific studies by paying focused attention to the socio-cultural and economic idiosyncrasies of developing countries (Banihashemi et al., 2017). This will help in identifying context-specific critical success factors/enablers/predictors of SPM which will subsequently lead towards achieving the overall goal of sustainable development in developing economies.

The third important feature is the use of well-grounded theories in the context of SPM academic research which is regarded as yet another aspect that needs devoted efforts and attention. In general, the TBL approach is used as the prime theoretical point of departure for operationalizing the construct of SPM (Carvalho & Rabechini, 2017; G. Silvius & Schipper, 2015). Which is indeed the most extensively used theoretical approach presented in the published literature so far. However, SPM has rarely been studied juxtaposed with theoretical support from other academic fields particularly from the discipline of management sciences. Dwelling on this line of argumentation, the existing literature exposes that hardly 1% of the published SPM articles have set their studies in a specific theoretical context (Sabini et al., 2019). As the SPM research is entering into the growth phase thereby researchers are suggesting to use the grounded theories like the theory of planned behaviour (A. G. Silvius & de Graaf, 2019) institutional theory (Alyamani, Long, & Nurunnabi, 2020) and innovation diffusion theory (Banihashemi et al., 2017). Nevertheless, this aspect of SPM research has been highlighted as a key limitation of current SPM research, which is subsequently being suggested as an important direction for future studies (Goel et al., 2019). In sum, the lack of theorization, limited usage of modern quantitative techniques and the specific geographical coverage (studies mostly focusing on the developed counties) synthesise the gap for future research studies on SPM.

CONCLUSION

This brief reflection of prominent research studies highlights the fact that the theme of sustainable project management is actively being used by scholars and that the researchers are curious for theoretical input from diverse fields. However, these studies tell us very little about the integration of sustainability concepts in practice across different fields and the enabling factors or mechanisms that support the integration of sustainability in projects. The factors discussed mostly encompassed the dynamics of sustainability within projects but the question of enabling sustainability or factors that act as enablers/barriers for sustainability has not been addressed thoroughly and adequately. In conclusion, these studies have opened up new horizons and avenues for research in the area of sustainable project management. The key feature of these studies includes the shared understanding of the theoretical base for considering sustainability in project management which implies the adoption of the three Triple Bottom Line perspectives. However, there is a dearth of studies on SPM and more research is needed on how project organizations are practically aligning sustainability with organizational strategies and operationalize them in project processes.

This research paper is perhaps the first effort to present a chronological review in the context of SPM literature and makes distinct contributions through this exclusive mode of literature review. Firstly, it has attempted to contextualise the research on sustainability in project management by delineating unique phases and by assimilating the historical developments, innovative trends, and new research paradigms. Subsequent to that, the chronological approach used in this study explicitly underlines the sequential developments in the domain of SPM which is quite useful in tracing the literature that has significantly influenced the field of SPM. Although this study comprehensively accommodates the existing literature, however, it is not without limitations. The past research has used diversified approached while addressing various aspects of sustainable development (SPM in this study), therefore, this study by no means, claims to represents all the published literature published in the domain of sustainable project management. Furthermore, this study has reduced its focus from a broader systematic review to the sequential developments in the field by setting a chronological order. Future studies may combine both approaches with due diligence and may offer more generalized as well as fresh perspectives on new trends in SPM research. Another limitation of this study is the restraint on basic keywords used in the search stage owing to which some of the relevant articles may be disappeared in the accumulated literature sample. Future studies may be further expanded by including other appropriate keywords. This research can be taken as a useful starting point for investigating the implementation of SPM practices in the construction industry. Besides adding new knowledge to the literature of sustainable development and project management, these findings are predicted to have practical

implications for constructor firms in the sustainable management of construction projects globally.

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