

Impact of Knowledge-based Program Management Resource on Social Enterprise Sustainability: A Structural Equation Modelling Approach



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Abstract

The focus of this research is to look at knowledge-based programme management resources as a starting point for investigating the relationship between Team programme management resources and social enterprise sustainability in underdeveloped countries. This article examines data from 300 programme management personnel of social businesses in Pakistan who responded to a self-administered and online survey. The link between team programme management resources and social business sustainability was investigated using structural equation modelling (CB-SEM). A total of 9 critical indicators of the team programme management assets have a substantial impact on the three sustainability pillars (Social, economic and environmental). This research contributes to the understanding of the relationship between programme management resources and the long-term sustainability of social enterprises. Few publications have looked into intangible programme management resources as a basis of sustainability using the RBV of the organization. This study adds to the body of knowledge on the RBV of the business and advances our consideration of programme management resources as a foundation of long-term sustainability.

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Introduction

Social entrepreneurship has long been regarded as a means of achieving long-term development ([Bansal et al., 2019](#)). Running a social enterprise (SE) is more challenging than running an SME corporation since SEs must accomplish

both economic and social sustainability as commercial operations. Many SEs fail or struggle to survive after a few years of operation ([Leung et al., 2019](#)). A social enterprise (SE) is typically characterized as "an organisation that

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uses a market-driven strategy to meet a basic unsatisfied requirement of the community([Social Enterprise Alliance, 2018](#)).

Social entrepreneurs have been defined as change agents that use entrepreneurial methods to provide systemic remedies to social and ecological complications while also guaranteeing their own existence and long term viability ([Mair & Marti Lanuza, 2005](#); [Partzsch & Ziegler, 2011](#)).

Governments have an even greater role to play in developing nations when resources are few and financial organizations are hesitant to give monetary assistance to SEs, by giving sources of finance for SE expansion ([Wonglimpiyarat, 2015](#)). While a lack of capital is widely seen as the most significant impediment to ethical business performance in SEs, resource-strapped entrepreneurs are seeking new enterprise models to help them survive ([Halme & Korpela, 2013](#)). However, social entrepreneurs are seen as vehicles for fulfilling the unmet needs of society, there has been little scholarly discussion of how this process will carry out ([Hall et al., 2010](#)). Within the subject of entrepreneurship, social entrepreneurship is evolved as a sub-discipline ([Certo & Miller, 2008](#)). While achieving their vision and goals, social entrepreneurs generate societal value by giving societal advantage to everybody, as well as monetary value by generating employment and money for enterprises ([Meyskens & Bird, 2015](#)).

According to ([Partzsch & Ziegler, 2011](#)), social entrepreneurs' major cause is to cope with generally recognized issues with their inventive potential. While the goal of a profit-maximizing corporation differs from that of a social enterprise, the decision-making mindset

should be similar to that of an enterprise while providing a societal advantage. While accomplishing their social goals, social enterprises may undoubtedly earn revenue and be self-sustaining. The excess created by such enterprises may be re-invested in the firm to deliver quality goods and services to the target set of right holders at a low cost ([Yunus et al., 2010](#)). [Belz and Binder \(2015\)](#) believe that social businesses' resources are limited not just to individual savings and bank credits but that their societal value making and environmental apprehensions also open the way to innovative, unorthodox, and gradually significant public financing sources like crowdfunding. According to ([Abou-Warda, 2016](#)), fostering entrepreneurial education necessitates government support in the shape of revising regulations on educators' and entrepreneurs' help in entrepreneurship teaching activities and also institutions are created by social entrepreneurs to carry out their purpose of social transformation and to advance creative solutions. The creation of a novel product or facility, developing demand for the product, or even evaluating the efforts or marketplaces are all important challenges encountered by social entrepreneurs ([Satar & John, 2016](#)). Besides, to achieve an equilibrium between their social and commercial aims with limited assets, social entrepreneurs must be inventive when defining Sustainability and their objectives ([Bornstein, 2007](#)). In addition, the government need to facilitate and promote innovation in the shape of financing and grants to enhance the social and environmental effect of social entrepreneurs. By focusing public policy toward creative problems, the government may foster entrepreneurial solutions ([Halme &](#)

[Korpela, 2013b](#)). Social entrepreneurship is gaining traction as a long-term solution that combines the triple bottom line (Koe, Hwee, Nga & Shamuganathan, 2010). According to a (British Council, 216) report in Pakistan, there is just a small quantity of studies comprehensively covering social entrepreneurship themes. Pakistan wants to build companies that meet both business and social requirements through social innovation and the role of business education. Furthermore, several articles cover issues that are well-known in the field of SE without explicitly focusing on them ([Shah & Shubisham, 2013](#)). However, one of the studies addresses the characteristics and shortcomings of routes of social enterprises ([Ayub & Khan, 2012](#)). Besides, in the context of social entrepreneurship, there is a paucity of information on topics such as resource acquisition, organisation, and resource packing (Dacin et al., 2010; de Bruin, Shaw & Lewis, 2017).

For many businesses, enabling the adoption and development of significant organizational elements such as economic, social, and environmental performance is a big issue. As a result, sustainability strategy is critical to company transformation and future success ([Shah et al., 2017](#)). According to the study, sustainable key pillars aim to meet current demands with the main aspects of environmental, economic, and social sustainability (Koukiasa, 2011). Many countries are now working to improve their corporate infrastructure in order to help their economies embrace more sustainable practices. Despite the fact that the environmental sector is quickly expanding, this is a long and costly process that necessitates fundamental organizational transformations at many levels ([Shah et al., 2017](#)).

One of the major objectives of this study is to examine the gaps and challenges to the implementation of sustainability in social enterprises via the lens of a resource-based perspective in order to derive relevant suggestions for their future success. Based on survey analysis, this study will focus on social enterprise sustainability and programme management resources.

Literature Review

Sustainability and Program Management

Sustainability has long been seen as a critical component of a firm's strategic orientation, as it enables the requirement to confirm the long-term success of people, methods, and the environment (Loongoni & Cabliano, 2015). The World Commission on Environment and Development (WCED) developed the term "sustainable progress" in 1987 to characterise development that meets current needs without endangering future generations' capacity to meet their own. The study's primary focus is on investigating some of these sustainable methods that are used in project management contexts, with a particular emphasis on social projects inside social enterprises. According to reports, the phrase "sustainability" is increasingly becoming a powerful idea in both the industrial and economic worlds. People, planet, and profits are the three primary aspects that make up the triple-bottom-line of the enterprise (triple P or triple pillars) ([Shah et al., 2017](#)).

The ideas of sustainability have an influence on how projects are carried out and managed. The link between sustainability and PM tends to be viewed in two ways: the viability of the project's product and the viability of the process ([Silvius & Schipper, 2015](#)). In

addition, the triple bottom line perspectives help to integrate sustainability necessities into the specifications and strategy of the outcome ([Aarseth et al., 2017](#); [Brones et al., 2014](#)), supplies utilized ([Akadiri, 2015](#)), expected advantages, excellence and accomplishment standards ([Martens & Carvalho, 2017](#); [Silvius et al., 2012](#); [Weninger & Huemann, 2013](#)). Research on incorporating long term viability into PM that uses this content-related approach frequently emphasis conceptualizing the (social, economic & environmental) by establishing sets of pointers on various viewpoints. (See e.g., [Bell & Morse, 2003](#); [Fernández-Sánchez & Rodríguez-López, 2010](#); [Keeble et al., 2003](#); [Labuschagne & Brent, 2008](#); [Martens & Carvalho, 2017](#)).

The researcher focuses on the amalgamation of sustainability dimensions into PM and delivery processes, like stakeholder recognition and involvement, project-related purchasing, business case growth, and project monitoring (Anala Sánchez, 2015; [Eskerod & Huemann, 2013](#); [Molenaar & Sobin, 2010](#); [Silvius & Schipper, 2014](#); [Weninger & Huemann, 2013](#)). Several writers argue that taking a sustainable approach to a project's content and process necessitates a shift in project management's scope: from controlling schedule, money, and value to incorporating triple bottom line ([Haugan, 2012](#); [Silvius et al., 2012](#)). Project management requires more all-inclusive, less technical ways, and the project became complex ([Eskerod & Huemann, 2013](#); [Silvius et al., 2012](#); [Gareis et al., 2013](#)). Besides, as a result, integrating sustainability necessitates a change in paradigm ([Silvius et al., 2012](#)).

Knowledge-based Intangible Program Management Resource

Firms are a group of resources that the PM the procedure is a subgroup of these resources, and that nearly all of these project management capabilities are strategic and, thus, a basis of competitiveness, using the RBV of the company. If resources exhibit the following competitive qualities, they are called strategic: they offer economic worth (valued), distinctive (rare), hard to duplicate (inimitable), and received company assistance ([Mathur et al., 2013](#)). VRIO ([Barney, 1991, 1998, 2002](#)) is a set of competitive qualities that leads to a competitive advantage. By being useful and having organizational support, a resource helps to competitive parity. When a resource is both precious and uncommon, as well as having organizational backing, it might help a company gain a brief competitive edge. To create a sustainable competitive advantage, a resource must be valued, uncommon, unique, and have company assistance. The PM application has gotten a lot of attraction recently as a way to enhance a company's competitive location. Besides, the literature, on the other hand, has largely concentrated on the operational elements of PM, and while the significance of this procedure identified as a deliberate capacity, it remains unexplored ([Mathur et al., 2013](#)).

Organizations are exhibited as a group of assets in the RBV ([Mahoney & Pandian, 1992](#)). This is the sort of knowledge that is handled by formal organizational structures and is kept in physical and virtual databases as papers and texts ([Botha et al., 2008](#)). Standards, methods, and procedures are examples of explicit knowledge resources in project management ([Jugdev et al., 2011](#)). According to

Gupta (2011), tacit knowledge is context-specific and difficult to formalize or document as papers (Hirai et al., 2007), and it is often held in the minds of persons and teams, and this type of knowledge is only passed down through direct human interaction, (Nonaka, 1994), dependent on participation. Tacit knowledge is considered useful and brings organizational innovativeness (Gamble & Blackwell, 2001; Wellman, 2009). Further, It is split into procedural and intellectual aspects. The procedural dimension, which may be referred to as "know-how," encompasses informal personal abilities and crafts. Beliefs, ideas, values, and mental models are all part of the cognitive dimension (Botha et al., 2008). Team project management capabilities, information-sharing practices, and best practices sharing are examples of tacit knowledge resources in project management (Jugdev et al., 2011). According to a study, efficient knowledge resource acquisition and application contribute significantly to an organization's high performance and competitive advantage (Drucker, 1993). Too far, the majority of PM research has been on codified knowledge assets (Pollack & Adler, 2015). The development and sharing of these assets through communities of practice have also been studied (Lee et al., 2015). However, a new line of study is looking at untapped PM capabilities (Kim et al., 2015).

Explicit or tacit aspects within groups are characterized as PM team resources (Jugdev & Mathur, 2006a). Tacit team assets are things focused on informal knowledge sharing, such as casual chats, mentorship, storytelling, brainstorming, and shadowing, and they address how participants communicate tacit information (Jugdev & Mathur, 2006a). Explicit PM team assets include

codified information assets like as specialized certificates and documented PM practice manuals (Mathur et al., 2007). Team assets are rarely explored in a private and public organizations.

Social Enterprises and Sustainability

Early research has identified social enterprises as a type of local economy that aims to promote the well-being of all members of society, with the goal of eventually contributing to the community's growth through social, economic, and ecologically beneficial means (Pearce, 2003). There is also a persistent expectation that social enterprises would contribute to positive social change while also producing enough surplus to sustain themselves and so provide cost-effective public service delivery (Kay et al., 2016). However, research findings show that in order to be sustainable, social businesses need to incorporate standard commercial growth strategies. Similar research has looked at the variables that aided the establishment of long-term social enterprises, such as the commercial orientation and expansion of these businesses (Jenner, 2016). SS is primarily defined as actively supporting the preservation and development of skills and capacities for future generations, with the goal of promoting health and promoting fair and democratic treatment. They are allowing the high quality of life and work practices to bother organisations both within and outside (Loongoni & Cabliano, 2015). Furthermore, according to Swanson and Zhang (2012), various organisations understand sustainability differently. Recent research shows that both the for-profit and non-profit sectors are moving in the direction of sustainability and adopting more sustainable practices (Chavan,

2005). Social initiatives are those that promote ethical ideals while collaborating with others in society to achieve a shared objective. Charitable projects, volunteer projects, community projects, and humanitarian projects are all phrases used to describe social undertakings ([Leszczynska, 2012](#)). SEs employ their entrepreneurial mindset to achieve their societal goals for the greater good of the community, reinvesting any profits back into their social effect goals. In both rich and developing nations, the rise of SEs has been a major element of economic activity. SEs, on the other hand, face significant degrees of complexity in their operations, as well as risks to its long-standing viability, since it pursues double bottom line goal (Moizer & Tracey, 2010). According to previous research, it is hard for SEs to strike an equilibrium between these two bottom lines and sometimes cause conflicting goals ([Battilana et al., 2012](#); [Mair et al., 2012](#)). In this study, social enterprise sustainability is linked to the program management resource, which explores the new area.

Research Methods

A structured survey instrument was used to collect data on the variables of interest, intangible programme management resources, and sustainability aspects (Social, Environmental, and Economical). The format of the survey was closely followed by specialists in the area ([Jugdev & Mathur 2011](#); Silvius et al., 2013). Multiple-item (4–13, average = 5 items per variable) questions were created for each variable. The metrics were developed using literature and fine-tuned in a pilot study. In this study, Likert scales were utilized for perception-oriented questions, and they were based on a seven-point scale with

Strongly Agree and Strongly Disagree as the endpoints. Individual participants submitted data, but the unit of analysis was an organization's programme management process.

The questionnaire was pre-tested online to verify that it addressed all of the major themes. The survey was then performed online and with a self-administered questionnaire, with a representative, random sample of social enterprises in Pakistan being targeted. The response rate was 33.1 percent, with 300 people out of 900 being contacted. Because the ratio of sample size (300) to number of variables (28) was more than 5:1, this sample size was judged "good" for an exploratory factor analysis ([Tabachnick & Fidell, 1996](#)). A data dictionary was used to code the data, and items were reverse-coded when needed. In the absence of missing data, subscale means were utilized.

Islamabad was represented by 26.2 percent of the participants, with the remainder coming from different regions of Pakistan. The male-to-female ratio was about 71.5 percent male and 28.5 percent female participants. Almost half of the participants were between the ages of 25 and 34. The project management certificate or diploma was held by nearly three-quarters of the participants. The participants were well-educated, with over 80% having completed a bachelor's degree or above. The majority of the participants worked in middle management or technical jobs. A third of the participants had 5–9 years of experience, while the remaining third had 10–19 years of experience.

The independent variables (Team programme management resource) and dependent variables (Economic, social and environmental sustainability), were extracted using exploratory factor

analysis with SPSS v. 24.0. On both the external and endogenous variables, data was analyzed using orthogonal rotation (Promax). We were able to get a more understandable result using the Promax rotation approach ([Conway & Huffcutt, 2003](#)). As a result, we used Promax rotation and a cut-off of 0.40 to find objects with high loadings to include in each component. To extract trustworthy factors, eigenvalues higher than one were employed. Cronbach's alpha is a metric that evaluates how effectively a group of indicators estimates a single one-dimensional unobserved concept. In the social sciences, a reliability coefficient of 0.70 or above is adequate, and all of the concept findings were higher than acceptable ([Nunnally, 1978](#)). This test was used to examine the inner consistency of the indicators inside each factor, as well as item-to-total correlations. Except for two item in team programme management resources TMR 5 & TMR 8, which were omitted from the item to total

correlation test, all other items have loading greater than 3.0. The results are summarized in the next section. The multivariate link between the programme management resource and the sustainability discovered through exploratory factor analysis was assessed using AMOS CB-SEM 24 version to examine the multivariate relationship between the programme management resource and the sustainability. For a small-to-medium-sized model, a sample size of 300 was sufficient ([Tabachnick & Fidell, 1996](#)). The theoretical research framework has been illustrated in figure 1. However, the hypothesis of the research paper is revealed as.

- H1:** Team PgM resource has a positive effect on economic sustainability in SEs.
- H2:** Team PgM resource has a positive effect on environmental sustainability in SEs.
- H3:** Team PgM resource has a positive effect on social sustainability in SEs.

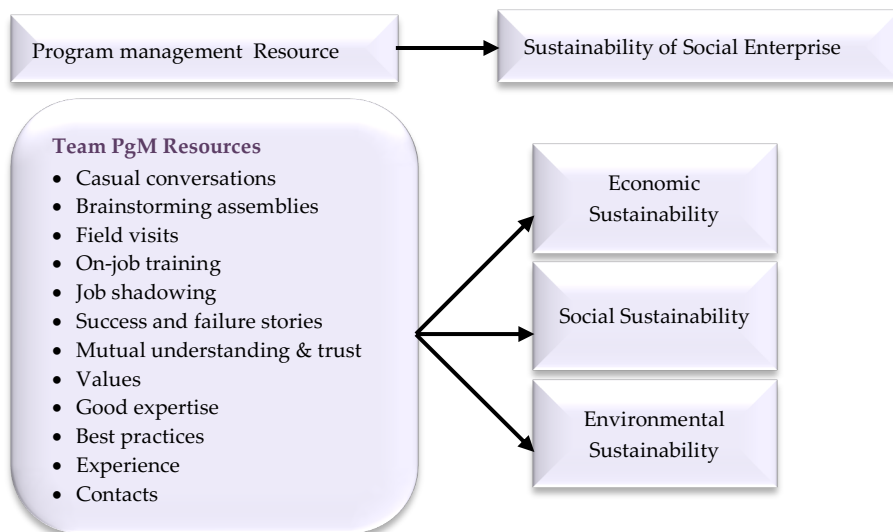


Figure 1: Research Theoretical Framework

Results and Discussion

Eleven questions about team

programme management were factored in using Promax (orthogonal) rotation

and principal component analysis. Four factors explained 52.503 percent of the variation for the full collection of variables, according to the research. Team programme management resource was factor 1, social sustainability was factor 2, environmental sustainability was factor 3, and economic sustainability of social enterprise was factor 4. The loading of all four factors was higher than the suggested amount of 0.66. All of the variables' communalities are higher than the

allowed threshold of 0.55. This might imply that the variables used in this study are merely tangentially linked. The KMO and Bartlett's Test of Sphericity, on the other hand, both show that the collection of variables is sufficiently linked for factor analysis. In addition, common method bias single factor in unrotated mode shown the variance less than 50 percent, which is in the acceptable range. Below table 1 given the detail of factor analysis.

Table 1. EFA Factor Analysis

	Factor Loadings				Communalities
	1	2	3	4	
TMR 1	.921				.853
TMR2	.917				.854
TMR 3	.928				.846
TMR 4	.901				.821
TMR 6	.913				.844
TMR 7	.925				.842
TMR 9	.891				.823
TMR 10	.921				.848
TMR 11	.934				.870
TMR 12	.923				.867
TMR 13	.897				.820
SS Improve labor performs		.903			.823
SS Improve health & safety measures		.890			.793
SS Community welfare		.916			.842
SS Improve diversity and equal opening		.890			.801
SS Esteem and enhance human rights		.902			.825
ES promote profit for funders/return on investment				.788	.624
ES impacts of Job creation & Purchase related laws				.834	.697
ES programs promote worth for money				.836	.732
ES investment /donation/ grants				.828	.683
ES promote local/area economic development				.839	.680
EnvS know-how and partnership helps our product and services to aid sustainability			.879		.781
EnvS energy consumption and/or pollution			.873		.792
EnvS Minimizing energy consumption			.888		.780

	Factor Loadings				
	1	2	3	4	Communalities
EnvS Minimizing water consumption and pollution			.895		.780
EnvS to minimize waste and necessary waste is as much as possible recycled			.898		.813

Table 2 shows the results of the measurement. To check the felicity of the solution and goodness-of-fit of the model, the χ^2/df (normed chi square), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI),

Non-Normed Fit Index/Tucker Lewis index (NNFI/TLI), and Incremental Fit Index (IFI) were used (Table 2). Table 2 shows that all of the indices were higher than their widely recognised levels, indicating that the measurement model suited the data well.

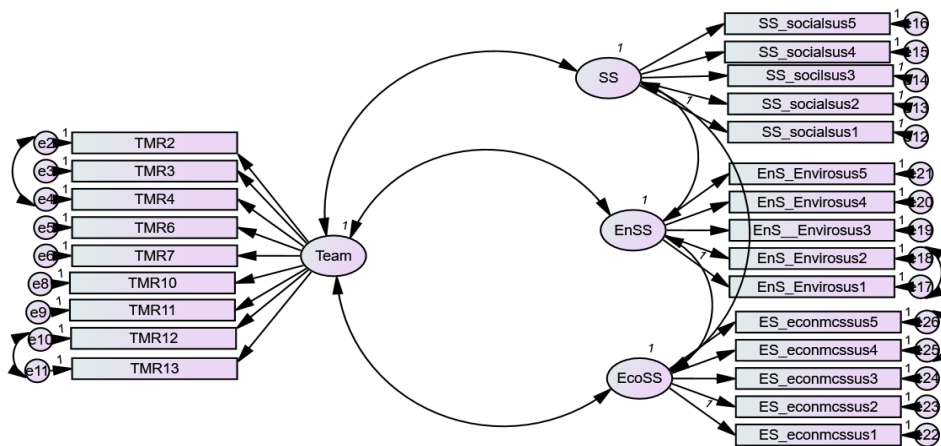


Figure 2: Full measurement model

Table 2. Measurement model values

Index	Values	
Absolute Fit	$\chi^2 = 412.485$, $df = 245$ $\chi^2 / df = 1.684$	
	GFI	0.902
	RMSEA	0.048
	P-close	P-close > 0.05 (.678)
Incremental Fit	NFI	0.944
	TLI	0.973
	CFI	0.976
Parsimony Fit	AGFI	0.879
	PNFI	0.838

Table 3 shows the standardised estimate, regression weight, and significance level of the hypothetical

route. Overall, team programme management resources have a beneficial

impact on environmental, economic, and social sustainability, according to the findings (H1, H2, H3 supported).

Table 3. Structural Model Hypothesis testing

Relationships	Hypothesis		Standardised Estimates Regression		Standardised Regression weight		Sig (at 0.05)
			SE	SRW	CR	P- value	
Team PgM resource	Env sustainability	H1	.036	.425	7.689	***	Sig
Team PgM resource	Eco sustainability	H2	.038	.454	8.042	***	Sig
Team PgM resource	Social sustainability	H3	.030	.220	4.515	***	Sig

However, PM expertise, PM practises, informal gathering, project inception programmes, on job training, individual training, and guidance were discovered in the PM literature review in private sector organisations ([Jugdev & Mathur, 2006a](#); [Rose et al., 2007](#); [Mathur et al., 2013](#); [Ofori-Dankwa & Julian, 2014](#)). In the past, however, PM studies have not shown team PM resources in public and non-governmental organisations. The current study's SEM results support hypothesis H1, H2, and H3 relating to Team program management resource, which has a significant influence on environmental (Std Est. =0.036, t-value=7.689), economic (Std Est =0.038, t-value=8.042), and social (Std Est = 0.030, t-value = 4.515) sustainability.

The team program management resource significantly improves the team's programme processes by increasing team program management information, team member capabilities, shared understanding, and team principles. As a result, the conclusions highlighted the importance of PgM resources for the long-term viability of SEs. Team PgM assets, on the other

hand, strongly promote strengthening team competences and cultivating an active team culture, both of which are critical for completing programmes within specified timeframes and reaching community goals. The results of the survey study show how important team PgM resources are in achieving sustainability from triple bottom line perspectives in SEs. Nine crucial element of team resource were identified are; Brainstorming consultation, Ground level visits, on job training, case studies, shared understanding and trust, team-best practices, experience, member contacts and problem solving approach. Social enterprise senior management needs to give more focus towards these nine identified crucial resource which enrich sustainability.

Conclusion

The importance of connections between sustainability and programme management resources inside social enterprises was the subject of this study. The primary research goals were all geared toward achieving the main goal. The study looks at the social, environmental, and economic sustainability of team programme

management resources. Furthermore, improving team programme management resource perception was highlighted as a crucial sustainable practice inside programme to attain sustainability in non-profit social business organisations.

A community-wide sustainable programme is a means of promoting and developing environmental awareness. In the early phases of the project, literature investigations were done,

emphasizing the enhancement of environmental consciousness of team resources, despite the fact that there is still a lack of knowledge of how these resources impact the sustainability of social businesses. It highlighted a research gap in the area of social enterprise sustainability integration. The article conducts a brief review of the literature, emphasizing the need for enterprises to strive for sustainability while enhancing their intangible programme management resource.

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