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Modelling the Relationship Between Social Infrastructure Project Success Factor and Their Criteria in Malaysia

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ABSTRACT

Social infrastructure projects (SIPs) are central to social progress and are considered to a critical element influencing the quality of life for new community members, particularly in the context of urban planning. This emphasis is especially relevant as the Malaysian government continues its efforts to transform the nation into a high-income nation economy, where quality of life serves as a key indicator of overall societal welfare. Understanding the relationship between SIPs success factors and their associated criteria can assist project managers in prioritizing and allocating resources effectively to achieve success, as measured by predefined benchmarks. Despite the importance of this topic, research on SIPs remains limited—especially studies that explore the relationships between success factors and success criteria. This study employs structural equation modelling (SEM) to examine these relationships. The findings reveal a significant positive relationship between (1) the post-construction factor and both classical and modern success criteria, and (2) the change management factor and both classical and modern success criteria. These results offer valuable insights for SIPs practitioners by highlighting key areas of focus, enabling more efficient resource allocation to achieve successful project outcomes.

1. Introduction

The importance of developing or upgrading social infrastructure systems, such as healthcare, education, water, energy, and transport, has been increasingly recognized by many governments. This is largely due to the understanding that well-designed and efficient infrastructure facilitates urban sustainability by enhancing quality of life, equity, stability, and social well-being for both existing and new communities, while also contributing to the commercial value of these communities

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[1–2]. Conversely, poor and inadequate social infrastructure services are seen as significant constraints on long-term community development and poverty alleviation [3].

Despite its importance, the provision of social infrastructure presents considerable challenges. For instance, several large-scale SIPs have experienced significant delays due to poor project management and design errors [4]. Research by Osei-Kyei *et al.* [5] and Senić *et al*. [6] has highlighted that SIPs often involve a higher degree of emotional attachment and public scrutiny, are more susceptible to political interference, and face increased abatement risks due to lower public tolerance for service quality deficiencies. Additionally, many governments are facing severe fiscal constraints resulting from declining revenues. This ongoing pressure to limit public debt exposure has further restricted the implementation of future SIPs that require government support in many countries [7].

In Malaysia, the government has recently established the Economic Transformation Programme (ETP), which aims to transform the country into a high-income nation by 2025. To achieve this goal, a significant increase in rural and urban infrastructure investment, particularly through the National Key Results Areas (NKRAs), is required to alleviate growth constraints [8]. One of the primary challenges faced by the government is replacing resource-intensive and environmentally harmful practices with sustainable development, especially under the current unsustainable fiscal conditions in the country [9].

While there is no shortage of research aimed at improving the understanding of successful economic infrastructure project delivery [10], studies focusing specifically on social infrastructure projects (SIPs) remain notably absent from the research agenda, particularly with regard to the relationships between SIP success factors and their associated criteria. The development of tailored models that account for social, financial, and broader economic criteria is key to ensuring successful SIP outcomes [11].

Many project management studies focus on comparing two main elements: input or independent variables (e.g., project manager experience) and output or dependent variables (e.g., project success) [12]. However, few studies have attempted to explore these relationships within the SIPs context, largely due to the complexity involved and the limitations of conventional statistical techniques [13].

This study builds upon the work of Wai *et al.* [14] by examining SIPs success factors and investigating the impact of various inputs (success factors) on outputs (success criteria). The primary objective is to model the relationship between success factors and their criteria in Malaysian SIPs. A better understanding of this relationship could assist the government and decision-makers in enhancing SIPs planning and control by enabling the allocation of appropriate resources to achieve project success as measured by clearly defined criteria.

2. SIPs Success Factor

A comprehensive review of current research by Osei-Kyei *et al.* [15] and Aljaber *et al.* [16] reveals that two key conceptual areas, success factors and success criteria, have been the central focus in studies of project success. Project success factors refer to the key elements, determinants, and processes that influence a project's outcomes, while project success criteria are the standards and benchmarks used to assess whether a project has been successful [10]. These two concepts are inherently interrelated, with success factors often being identified after establishing the relevant success criteria.

Recent studies by Abal-Seqan *et al*. [17] and Altarawneh *et al.* [18] emphasize the importance of distinguishing between success factors and success criteria to ensure the robustness of project success research. Typically, criteria represent top-level performance measures, while factors fall under these measures as contributing elements. Identifying key success factors enables decision-makers to allocate resources more effectively to meet desired outcomes.

Building on this understanding, Wai *et al.* [14] applied principal component analysis and categorized 26 SIPs success factors in Malaysia into six core dimensions: (1) pre-construction, (2) construction, (3) post-construction, (4) organizational, (5) information management, and (6) change management (Table 1). These dimensions provide the foundation for modeling the relationships between SIPs success factors and success criteria.

Table 1
Success factors of SIPs. Adapted from Wai *et al.* [14]

Success factors of SIPs. Adapted from Wai *et al.* [14]
Pre-construction
F01 Definition of project objective and goal
F02 Clear scope and work definition
F03 Selection of competent contractors through rigorous tendering process
F04 Clear site supervisor's role and responsibilities
Construction
F05 Sufficient budget and reliable source of finance
F06 Project manager's competencies and technical capabilities
F07 Contractor's financial standing
F08 Contractor's competencies
F09 Project management team's competencies
F10 Top management support
Post construction
F11 Credibility of a principal submitting person and a respective submitting person
F12 Contractor's responsibility
F13 Technical personnel's competencies in handling refurbishment/repair structural
F14 Periodic inspection of buildings
Organizational
F15 Well coordinated and discipline stakeholders
F16 Project team motivation
F17 Team boosting policy
F18 Rewarding the employees and being open to innovation
Information management
F19 Communication, coordination and cooperation
F20 Adequate communication channel
F21 Adequate information flow
F22 Monitoring, feedback and continuing involvement in the project
Change management
F23 Client's competencies
F24 Project planner's competencies
F25 Designer's competencies
F26 Accommodation of change

2. SIPs Success Factor

Since the study by Wai *et al.* [14] did not address the output component (i.e., SIPs success criteria), this research proposes that the success criteria for Malaysian SIPs be classified into two fundamental categories: classical criteria and modern criteria. Six success criteria are identified (Table 2), based on insights from two Malaysian professionals experienced in managing SIPs, as well as previous studies such as Mavi et al. [19], who argued that traditional measures of time, cost, and quality are insufficient within a modern paradigm for evaluating project success.

Table 2
Success criteria of SIPs

Classical
CC1 Time CC2 Cost CC3 Quality
Modern
MC1 Location of construction MC2 Client's satisfaction MC3 Public's satisfaction

2.1 Classical Criteria

The reflective indicators include the practical considerations of time, cost, and quality. These factors have long been regarded as the fundamental criteria for measuring project success. It is common for the success of a social infrastructure project (SIPs) to be assessed based on its timely completion. Alongside time, cost is an equally important criterion. SIPs that exceed budget constraints can impact operations in the post-construction phase, particularly given the budgetary limitations associated with SIPs development in Malaysia. Lastly, construction quality is critical, as well-built infrastructure can better serve public needs. A notable example is the Kota Kinabalu Queen Elizabeth Hospital in West Malaysia, where structural failures and safety concerns led to the relocation of hundreds of patients to other hospitals [20].

2.2 Modern Criteria

The indicators include construction location, client satisfaction, and public satisfaction. The concept of modern criteria has emerged from the view that classical criteria alone are no longer sufficient to measure construction project success, as the definition of success has become increasingly complex and multifaceted. Given that the primary aim of social infrastructure projects (SIPs) is to meet the social needs of communities, the location of construction plays a critical role in determining project success. Hussain *et al.* [21] highlighted that client satisfaction is a key component of project success. Furthermore, several studies, including those by Oke [22] and Astana *et al.* [23], have emphasized that customer satisfaction is an essential criterion for evaluating the success of a project.

3. Research Methodology

A questionnaire was developed to model the relationships between SIPs success factors and their corresponding criteria, based on an extensive review of relevant literature. The questionnaire consisted of three parts: Part 1 collected demographic information from respondents, while Parts 2 and 3 focused on assessing the perceived importance of SIPs success factors and criteria.

The survey was conducted between May and November 2012. Prior to full deployment, the questionnaire underwent a pre-testing phase involving both interviews and a pilot study. Initially, the questionnaire was reviewed by two experienced industry practitioners—a contractor director and a project manager, each with over ten years of experience—to evaluate the clarity and relevance of the questions. Minor revisions were made based on their feedback.

Subsequently, a pilot survey was conducted in December 2011 by administering the questionnaire to 100 SIPs stakeholders in Perak, Peninsular Malaysia. The pilot study yielded useful insights regarding the response rate, reliability, and incidence of missing data. As anticipated, the response rate was low, at 20%. To address this, the demographic section was designed using multiple-choice questions to enhance convenience and increase response rates. The Cronbach's alpha reliability coefficient from the pilot study was 0.72, indicating acceptable internal consistency. Of the 20 responses received, three were incomplete, highlighting the need for a larger sample size in the main survey to account for potential non-responses and incomplete data.

Following the pilot study, the final questionnaire was distributed to a sample of 800 professionals, including project managers, architects, engineers, quantity surveyors, contractors, sub-contractors, and suppliers involved in SIPs across Malaysia. These individuals were selected based on their direct involvement in and knowledge of SIPs. A total of 213 completed responses were received, yielding a response rate of 27%. This rate is considered acceptable, as Sataloff and Vontela [24] reported that most survey response rates in the construction industry fall between 20% and 30%.

Additionally, 73 questionnaires (10%) were returned incomplete, while the remainder were either not returned or lost. The valid responses represented a broad cross-section of roles and professions within the construction industry. Respondents rated each success factor on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Data analysis was conducted using SPSS 18.0 for descriptive statistics (e.g., frequency analysis and Cronbach's alpha), and AMOS 18.0 was used to perform structural equation modelling (SEM).

3.1 Modelling the SIPs success factors and success criteria

In this study, Structural Equation Modelling (SEM) is employed to develop a causal relationship model between SIPs success factors and their corresponding criteria. This multivariate statistical technique enables the simultaneous estimation of relationships among observed variables, latent constructs, and the associations between observed and latent variables while accounting for measurement errors.

A total of 26 success indicators were grouped to explain six latent SIPs success factors. These latent factors were then used to assess the overall level of SIPs success. Additionally, two SIPs success criteria were identified and grouped to further measure SIPs performance outcomes.

Researchers employing SEM for empirical model development can choose from various strategies, such as the strictly confirmatory strategy, model generation, and model comparison [25]. The strictly confirmatory strategy, while rigorous, offers limited flexibility in the event of a poor model fit. Among these, the model-generation strategy is the most widely adopted in empirical SEM applications, followed by the model comparison approach.

The model-generation strategy begins with a hypothesised model, which is iteratively modified to improve model fit. A common tool in this process is the Lagrange Multiplier (LM) test, represented by the Modification Index (MI) in AMOS. In contrast, the model comparison strategy involves hypothesising multiple alternative models and fitting each to the same dataset. The model with the best fit, based on comparative metrics, is then selected.

MacCallum et al. [26] reviewed 100 published SEM applications and found that 37 acknowledged modifying their initial models primarily using MI. However, Xiong et al. [27] reported that only six of those studies provided substantive justification for the specific modifications applied. As model generation is inherently data-driven, any modifications must be well justified; otherwise, the final model may lack meaningful theoretical grounding, despite displaying acceptable fit statistics. Xiong et al. [27] concluded that while the model-generation strategy is widely used, it has significant shortcomings that are frequently overlooked. They further noted that the model comparison approach mitigates many of these issues by evaluating models relative to each other, thereby enhancing interpretability and robustness.

Following this rationale, the present study adopts the model comparison strategy. Sarstedt et al. [25], for example, initiated their SEM analysis with several theoretically grounded models and evaluated their relative performance. Arbuckle [28] introduced the use of bootstrapping as a method for model selection in SEM. In this study, the approach proposed by Linhart and Zucchini [29] is adopted.

Before conducting the model comparison test, it is important to understand that bootstrapping is a resampling technique that generates empirical estimates of parameter distributions using non-normal data. According to Arbuckle [28], the bootstrap model comparison approach comprises four main steps. First, multiple bootstrap samples are generated by sampling with replacement from the original dataset, treating the sample as the population. Second, each competing model is fitted to every bootstrap sample. For each analysis, the discrepancy between the implied moments of the bootstrap sample and those of the bootstrap population is calculated. Third, the average discrepancy across all bootstrap samples is computed for each model. Finally, the model with the lowest average discrepancy is considered the best-fitting model.

3. Results

3.1 Sample Characteristics

Most of the respondents (66, or 31%) were employed as quantity surveyors, while 52 respondents (25%) were contractors. The remaining participants included engineers (22%), developers (7%), subcontractors (4%), architects (2%), and suppliers (2%). Additionally, 18 respondents came from other professions, such as contract executives, site supervisors, and academics. The distribution of respondents' professions is presented in Table 3.

Regarding industry experience (Table 4), 86 respondents (41%) had more than five years of experience in the construction industry, suggesting that their responses are likely to reflect high-quality insights. Furthermore, 127 respondents (60%) held junior positions within their respective professions.

Table 3
Profession of the respondents

Profession	Frequency (N)	Percentage (%)
Developer	15	7.0
Architect	3	1.4
Engineer	47	22.1
Contractor	52	24.4
Subcontractor	9	4.2
Quantity Surveyor	66	31.0
Supplier	3	1.4
Other	18	8.5
Total	213	100

Table 4
Working experience of the respondents

Years	Frequency (N)	Percentage (%)
<2 years	53	24.9
2-5 years	74	34.7
6-10 years	31	14.6
>10 years	55	25.8
Total	213	100

The reliability of the survey instrument must be established prior to data analysis. In this study, Cronbach's alpha was used to assess the internal consistency of the constructs. The Cronbach's alpha values for the eight constructs are presented in Table 5. A value of 0.70 is generally considered the acceptable threshold for reliability [30]. All constructs demonstrated acceptable convergent validity (i.e., homogeneity or internal consistency), with the exception of the pre-construction factor. However, as noted by Zitzmann and Orona [31], a value of 0.60 may be acceptable for newly developed scales.

Table 5
Reliability results

Factor and Criteria	**Cronbach's Alpha**
Pre-construction Factor	0.66
Construction Factor	0.77
Post construction Factor	0.74
Organizational Factor	0.79
Information Management Factor	0.86
Change Management Factor	0.77
Classical Criteria	0.79
Modern Criteria	0.77

3.2 Empirical SEM Results

To perform the model comparison, four models representing the relationships between SIPs success factors and their criteria were hypothesised (Figures 1 to 4). The arrows indicate the direction of the hypothesised influences. The bootstrapping approach was employed for model comparison. The results showed that Models 1 and 2 could not complete the bootstrap test due to significant issues encountered during model specification (Table 6). The mean discrepancies for Models 3 and 4 were 1,125.143 and 1,435.776, respectively, with standard errors of 1.440 and 1.527. A smaller mean discrepancy indicates a better-fitting model. Accordingly, Model 3 was identified as the best-fitting model and was selected for further analysis, including the calculation of several key estimates.

Table 6
Fit measures of the comparable models.

Model	Mean Discrepancy (Standard Error)
1	Unfinished
2	Unfinished
3	1125.143 (1.440)
4	1435.776 (1.527)

Note: (standard errors in parentheses)

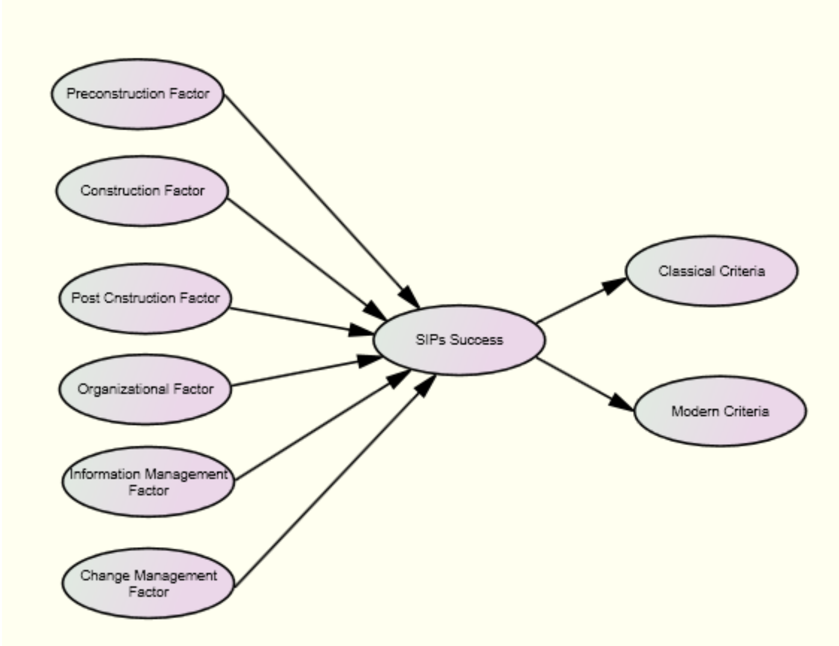

Fig. 1. Hypothetical Model 1

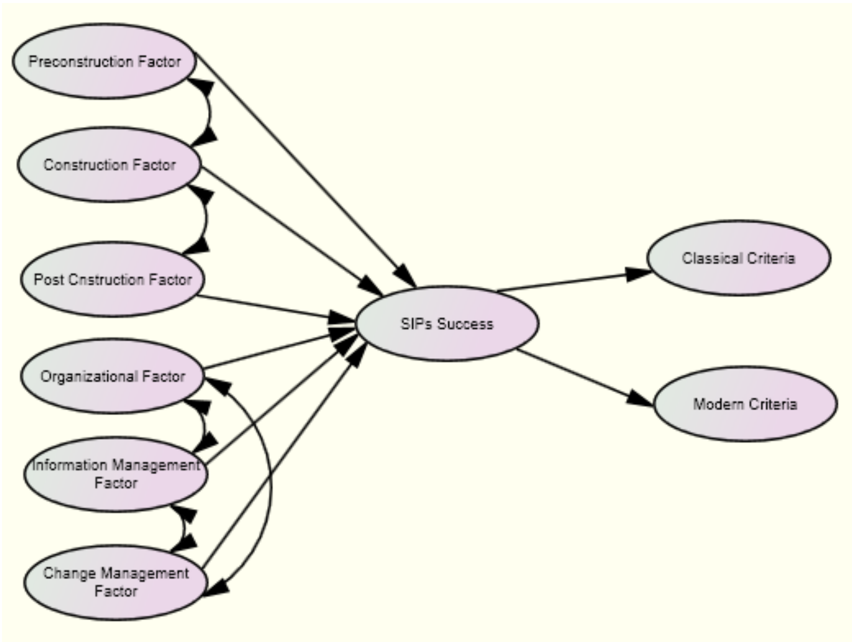

Fig. 2. Hypothetical Model 2

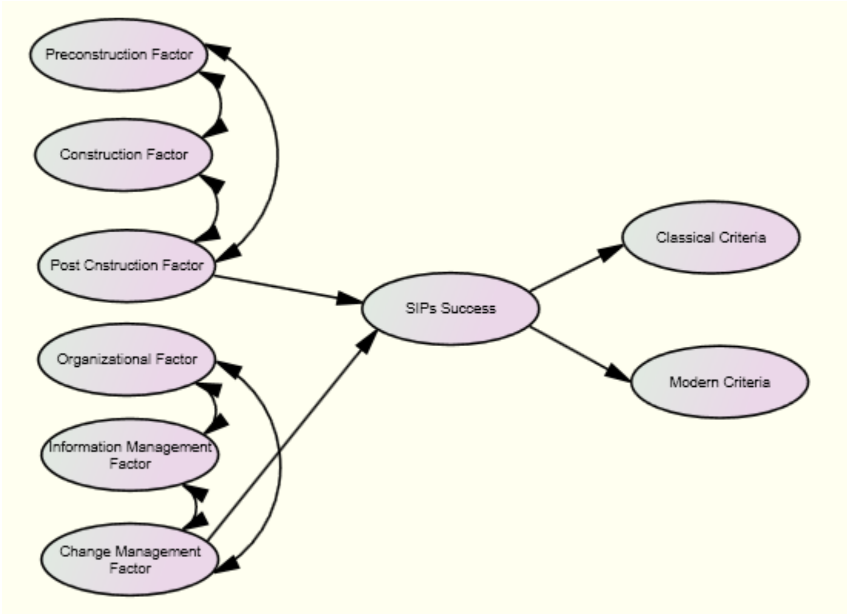

Fig. 3. Hypothetical Model 3

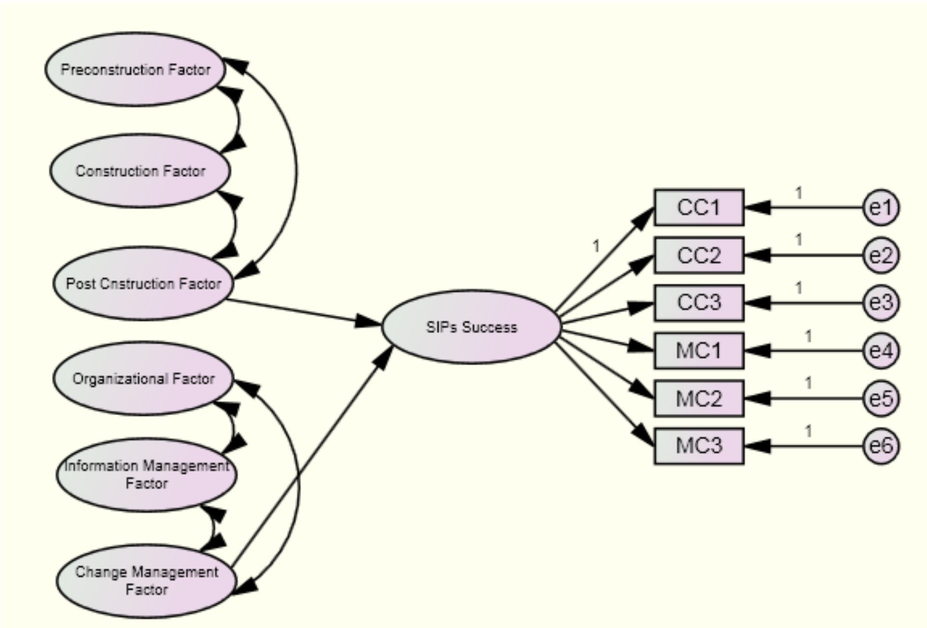

Fig. 4. Hypothetical Model 4

Overall, the results of the various Goodness-of-Fit (GOF) tests presented in Table 7 suggest that the model fits the data well. The Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA), and Comparative Fit Index (CFI) all fall within acceptable thresholds. However, the chi-square to degrees of freedom ratio and the Tucker-Lewis Index (TLI) are slightly outside the recommended criteria. Researchers often improve these indices by following the recommendations of the Lagrange Multiplier (LM) test, which is represented by the Modification Index (MI) in AMOS.

Table 7
Goodness of Fit measures of the model

GOF	Acceptance Criteria	Model
Chi-square/degree of freedom	1 – 2 [32]	2.179
Goodness of Fit Index (GFI)	0 (no fit) – 1 (perfect fit), recommended level >0.8 [32]	0.802
Root Mean Square Error of Approximation (RMSEA)	<0.05 indicates a very good fit, recommended level < 0.08 [33]	0.075
Tucker-Lewis Index (TLI)	0 (no fit) – 1 (perfect fit), recommended level >0.9 [34]	0.788
Comparative Fit Index (CFI)	0 (no fit) – 1 (perfect fit), recommended level >0.9 [34]	0.806

A critical issue noted by Xiong et al. [27] is that the process of hypothesising a model using Structural Equation Modelling (SEM) is data-driven, with models often modified to better fit a specific dataset and then refit to the same data. As such, the modified model should be validated using a new sample; however, this recommendation is frequently overlooked in practice. One significant concern with model modification is the potential correlation between error terms, which can compromise the validity of the model. Shaver [35] identifies three components of an error term: missing variables, measurement error, and truly random effects.

Each of these components warrants careful consideration. According to Shaver [35], if a missing variable exerts a substantial influence on two variables, a strong correlation—either positive or negative—between their error terms is likely. Measurement error, in turn, is viewed as a specific form of the missing variable problem. If the nature of the measurement error is known, it can be accounted for, preventing correlation between error terms. However, if left unaccounted for, it constitutes an omitted element in the model. The third component—truly random error—is typically negligible and can be ignored.

In summary, the testing of mediating variables in management research should not violate the underlying assumption of uncorrelated regression errors. Therefore, in the context of SEM, model modifications—especially those that introduce correlated error terms—must be approached with caution, as they may result in inaccurate or biased conclusions.

In light of these critical considerations, this study opts not to modify the hypothesised model (Hypothetical Model 3 in Figure 3), despite several indices falling slightly outside the acceptable range. Notably, the model demonstrates a relatively good fit across several key indices. Thus, the use of the model comparison strategy in this study is justified.

4. Conclusions

The results of the SIPs success model are presented in Figure 5. The assessment of the relationships is primarily based on the standardised weights and correlations, as the analysis involves comparisons within a single-group model. Significant correlations ($p < 0.001$, denoted as *** in Table 8) were found between the following pairs of factors: the pre-construction factor and the construction factor, the post-construction factor and the organisational factor, and the information management factor and the change management factor. These results suggest that knowledge of one factor’s value can aid in predicting the value of the corresponding factor. Furthermore, a high value in one factor is likely to be associated with a high value in the other.

Table 8
Standardized and correlation coefficient of path in final SEMs

Path	Standardized	Correlation
Pre-construction Factor<-->Construction Factor	-	0.85***
Construction Factor<-->Post Construction Factor	-	0.76***
Pre-construction Factor<-->Post Construction Factor	-	0.74***
Post Construction Factor-->SIPs Success	0.58***	-
Organization Factor<-->Information Management Factor	-	0.80***
Information Management Factor<-->Change Management Factor	-	0.77***
Organization Factor<-->Change Management Factor	-	0.75***
Change Management Factor-->SIPs Success	0.42**	-
SIPs success-->Classical Criteria	0.58***	-
SIPs success-->Modern Criteria	0.56***	-

All standardized and correlation coefficient are significant at **p<0.01 and ***p<0.001

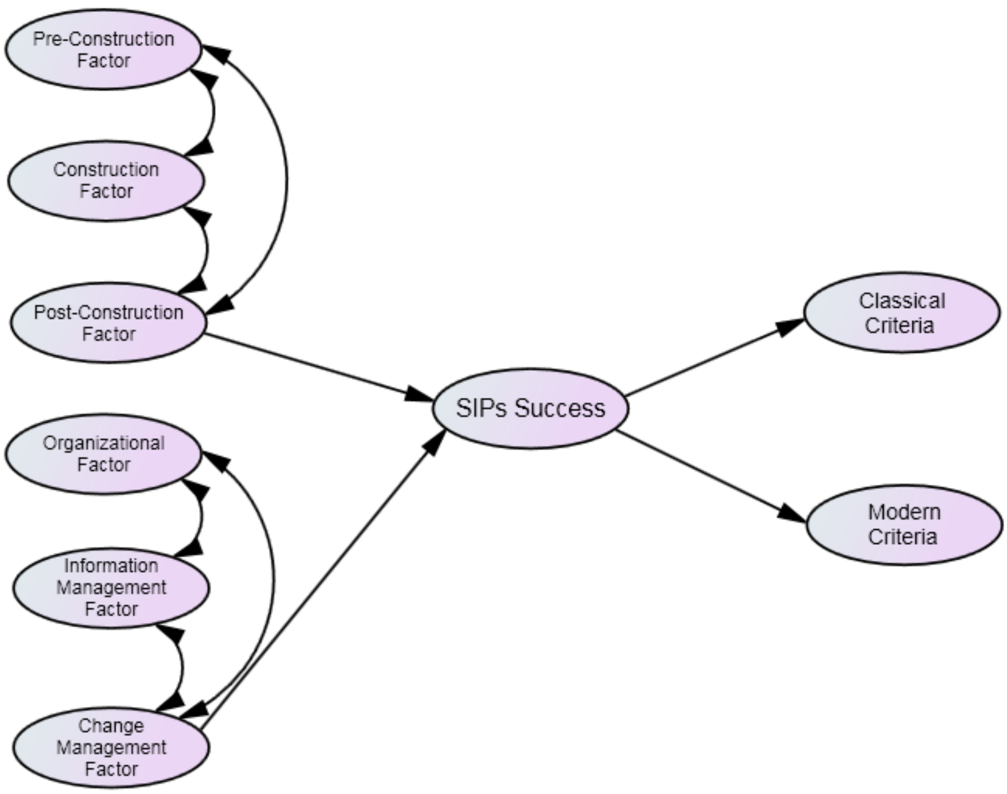

Fig. 5. SIPs success model

According to Chin [36], standardised weights should be at least 0.20 and ideally above 0.30 to be considered meaningful for discussion. Sarstedt *et al.* [25] argued that standardised weights greater than 0.50 indicate a large effect. Based on these thresholds, it is reasonable to conclude that the post-construction factor has a substantial influence on the success of SIPs in Malaysia. Similarly, the change management factor is found to have a moderate influence on SIPs success.

This study also proposed two categories of success criteria: classical and modern. The success of SIPs, or their outcome effectiveness, is measured by the classical criteria with a standardised weight of 0.58, indicating a large effect. Therefore, the classical criteria can be considered effective in assessing SIPs outcomes in Malaysia. In addition, modern criteria are shown to be similarly effective measures.

Table 8 presents the standardised weights and correlation coefficients of paths in the final SEM model. A positive relationship of 0.58 was found between the post-construction factor and SIPs success. Literature supports the argument that a construction project's success should only be assessed after its completion. Any assessment during the project's progress may be unreliable. This distinction reflects the difference between project performance and project success—the former can be assessed during execution, while the latter should only be judged post-completion. Given that SIPs aim to foster sustainable communities, the post-construction stage is critical to ensuring the project's functionality and long-term benefit. Moreover, considering community involvement [37], the post-construction stage plays a vital role in determining whether the SIPs is effective. Therefore, this study claims that the only strongly significant relationship is between the post-construction factor and SIPs success. From some perspectives, this stage may even outweigh the importance of the pre-construction and construction stages.

Among the organisational, information management, and change management factors, only the change management factor demonstrates a strong positive relationship with SIPs success (standardised weight = 0.42). This finding is consistent with Naji et al. [38], who identified a positive relationship between project success and the implementation level of change management processes. It also supports the claims of Musa et al. [39], who noted that effective change management often determines the success or failure of a project. Taher et al. [40] and Lew et al. [41] identified constructs that influence successful change management practices. Additionally, Ismaeil et al. [42] found that change orders can contribute 10–15% additional cost to a project budget, highlighting the significance of managing change effectively. Therefore, this study concludes that change management significantly impacts SIPs success.

Furthermore, results indicated a significant positive relationship between SIPs success and both classical (0.58) and modern (0.56) criteria. The similarity of these values suggests that while traditional "golden triangle" criteria (time, cost, quality) remain dominant, modern criteria—such as client satisfaction, public satisfaction, and project location—are gaining importance. These findings align with Ika [43], who noted that high-profile projects like the Thames Barrier, Fulmar North Sea Oil Project, and the Sydney Opera House, although exceeding their budgets and timelines, are still regarded as successful.

Since SIPs aim to support long-term social development, public satisfaction over time becomes a key performance indicator. If initial community members are satisfied, the future well-being and opportunities of new residents are enhanced. Thus, a strong positive relationship between SIPs success and modern criteria is justified.

This study also reveals significant positive correlations between:

i) Pre-construction and construction factors (0.85),
ii) Construction and post-construction factors (0.76),
iii) Pre-construction and post-construction factors (0.74).

These findings are in line with Naji et al. [44]. While one could argue that the construction stage is the most critical—because it physically manifests the project—Ika [43] emphasized that project perception can shift over time; a project considered a failure at completion may later be viewed as a success, and vice versa. This reinforces the view that a project should only be evaluated holistically after its life cycle is complete. Hence, the strong correlations among the life cycle stages (0.74–0.85) support the idea that these stages are interdependent and mutually reinforcing.

Additionally, strong positive correlations were found among the management-related factors:

i) Organisational and information management factors (0.80),
ii) Information management and change management factors (0.77),
iii) Organisational and change management factors (0.75).

Given the complex and multifaceted nature of these constructs, it is often impossible to account for all relevant variables. Including these interrelated factors in the model helps mitigate the potential omission of key internal variables. Thus, their inclusion in the model is well justified.

5. Conclusions

The provision of adequate and efficient social infrastructure is essential to ensuring that individuals are safe, healthy, and productive within their communities. This study adopted a questionnaire survey approach to model the relationships between Social Infrastructure Project (SIPs) success factors and their criteria in Malaysia. The results demonstrate a significant positive relationship between the post-construction factor and SIPs success, as well as between the change management factor and SIPs success. Additionally, significant correlations were observed between the following pairs of factors:

i) Pre-construction and construction,
ii) Construction and post-construction,
iii) Pre-construction and post-construction,
iv) Organisational and information management,
v) Information management and change management, and
vi) Organisational and change management.

Contrary to commonly accepted views, the study found no significant direct relationship between the following factors and SIPs success:

i) Pre-construction and construction, and
ii) Organisational and information management.

This result is largely attributed to the stage at which SIPs success is measured. Evidently, the success of SIPs can only be meaningfully assessed during the post-construction stage. Similarly, SIPs can only be deemed successful once all changes have been effectively managed.

The findings reveal the mechanisms through which SIPs success factors influence their corresponding criteria, thereby allowing for better control and optimisation of these factors with limited resources. These insights are valuable for assessing whether public funds are being used effectively to construct functional and beneficial SIPs that support sustainable development in Malaysia.

However, the study has certain limitations. First, the data were self-reported, which may introduce common method bias and potentially exaggerate some relationships. Additionally, the public—an important SIPs stakeholder group—was not predominantly involved in the survey. This exclusion was justified on the basis that the general public lacks the technical construction knowledge required to meaningfully evaluate SIPs success factors. Including the public would also have resulted in two heterogeneous populations, which would complicate data analysis and reduce the clarity of findings. Despite these limitations, the study makes a valuable contribution by validating the hypothesised model and providing an empirical foundation for future research and comparison.

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