An interpretive structural modeling approach to enablers of green supply chain management on construction projects

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CHRONICLE	ABSTRACT
	The objective of this study is to understand and evaluate the interactions of the Green Supply Chain Management enablers from a construction project's perspective in Imo State, Nigeria. This paper discusses the mix of practical intuition and determination through an interpretive structural modeling (ISM)-driven methodology. Eight (8) enablers were identified from a literature review, expert consultation, and real-world examples. While Matrice d'Impacts croisesmultipication applique a classement analysis (MICMAC) was used to identify dependence and driving power, it was used as a way to understand the relationship between the enablers. The study found that strong, yet fragile, forces drive GSCM adoption, with enhanced awareness of GSCM, increased market appeal for green construction projects, and government support through incentives and tax rebates.

1. Introduction

Many companies and organisations see the process of moving to a green economy as a paradigm change for them to boost their competitiveness (Nguyen & Le, 2020). The practises of Green Supply Chain Management (GSCM) include eliminating waste and pollution by maintaining a strategy that addresses environmental issues (Sarkis, 2006; Zhu et al., 2012). Because of global environmental issues, specialists have continuously been committed to environmentally friendly supply chains since the 1990s (Dhull & Narwal, 2016; Niemann et al., 2016; Rehman & Shrivastava, 2011). The deployment of the venture framework, such as GSCM, would increase energy reserve funds, decrease emissions, end or decrease waste, increase consumer appreciation, and increase the profitability of assembly and service companies more generally (Aziziankohan et al., 2017; Fang & Zhang, 2018). Although Zhu et al. (2012) stressed that by managing supply and demand with suppliers and customers, GSCM can boost its operational output by improving the quality of the item and process plan, and eventually cut waste.The planet now faces the seriousness of ecological concern in the light of the recent push for mechanisation in the world since the end of the Second World War, and of the progress made in industrialised nations. In order to prevent the harmful effects of natural deterioration, various legal regulations have been adopted by developed and developing countries in compliance with their needs (Shukla et al., 2011). In addition to natural disasters, corporations need to think about how their goods and services can affect the environment as well (Dhull & Narwal, 2016). Wibowo et al. (2018) note that, but not just in the construction industry, GSCM is used for building projects around the world. The GSCM project has had an unjustifiable positive impact from the outset on the assembly and automotive industries, thus ignoring the construction project management sectors. Indeed, in emerging and developed countries, Brik et al. (2013) and Niemann et al. (2016) found that many GSCM policies were not well implemented. Ojo et al. (2013), for instance, was one of only a handful of specialists who performed an audit of GSCM activities in construction companies in Lagos, Nigeria and South Africa, while GSCM studies were targeted to assembly and manufacturing environments in different countries (Bhateja et al., 2012; Bhateja & Babbar, 2011; Bhool &

Narwal, 2013; Dhull & Narwal, 2016; Chien & Shih, 2007; Kamolkittiwong & Phruksaphanrat, 2015; Luthra et al., 2014; Niemann et al., 2016; Zhang et al., 2009; Zhu et al., 2012; Zhu et al., 2007). The present study argues that GSCM studied only the automobile, mechanical and business fields, with little to no consideration given to the building sub-sector, as investigated by the aforementioned scholars. Operational research was performed to analyse the critical enabling factors and their application within the Nigerian construction industry in order to address this shortcoming.

The purpose of this study is therefore to define the enablers for the implementation of GSCM practises for construction projects in Imo State, Nigeria. It is also important to define the enablers that could inspire the adoption of GSCM practises in the industry. The need for this study lies in the lack of empirical research in the Nigerian context and in the Imo State in particular, coupled with the rapid growth of the Nigerian construction industry. The findings of this study will provide useful insights for building industry professionals to advance their construction sector alongside their supply chains from a conventional to a greener state.

2. Review of related literature

GSCM is defined, as Ahia and Searcy (2013) and Muposhi (2017) assume, by hierarchical measures that combine monetary, ecological and cultural factors with the sole objective of achieving organisational efficiency. Though GSCM has moved, government requirements have also been incorporated to promote natural well-being and the hierarchical execution of public works. The idea of GSCM was first formulated in 1990, as suggested by Khaksar et al. (2016). In any case, it has once again become an area of enthusiasm for scholars with the current enthusiasm for promoting and changing events or social and environmental concerns relevant to supply chain exercises. In both the academic world and in practise, GSCM, as articulated by Fang and Zhang (2018), has emerged as a major theme that promotes the use of gut feelings in all aspects of supply chain management. GSCM is an improvement in the management of the supply chain (SCM) which focuses on green issues such as waste disposal, environmental management, and the ideal use of accessible goods. Via the use of green buying, green assembly, green circulation and green promotion, Tramarico et al. (2017) further analysed GSCM. Green Supply Chain Management" is the practise of utilising environmentally friendly inputs and transforming by-products to products that can be enhanced or recycled in the world" (GSCM). GSCM is aiming to implement material reuse, remanufacture and re-use into new products or papers. Wibowo et al. (2018) recommended the following methods or strategies in order to efficiently incorporate GSCM in the construction industry: green item configuration, green material management, green assembly and development, green dissemination and advertising, and reverse logistics. In comparison, Wibowo et al. (2018) noted that the above methodologies would contribute to being a viable method of minimising building waste and pollution throughout the value chain, consisting mainly of the construction arena's upstream, midstream, and downstream stages.

The construction sector according to Zulkefli et al. (2019), is responsible for over 39% of the world's carbon emissions, which will lead to ecological contamination. There is a need for industry players to take strict measures to minimise the consequences of environmental impacts on their products, with customers becoming increasingly concerned about tough natural guidelines being forced by governmental agencies. Construction is one of the most important sectors that drive human progress by improving the physical environment of society (Ojo et al., 2013). Its products are used to conduct business, provide safe housing, and do other activities. Regardless of the way in which the business has some critical and irreversible environmental impact, the Nigerian construction industry contributed a higher percentage of the nominal GDP in the third quarter of 2019 than it did in either the second quarter or the first quarter of the year (NBS, 2019). The sector plays a critical role in the administration of physical facilities and infrastructure across most nations (Wibowo et al., 2018). The industry has a disproportionate effect on different sectors through aggregate demand and aggregate supply. The company (construction) requests various goods and materials from other companies in order to develop structures or other infrastructures.

2.1 GSCM enablers in the construction industry

The enablers of GSCM implementation include those forces that allow companies to update their green supply chains (Dhull & Narwal, 2018; Niemann et al., 2016). The construction industry was surveyed by Wyawahare and Udawatta (2017) and addressed the use of GSCM in that field. The review identified the following as GSCM enablers: attention to management; improvements in current approaches; enhanced understanding of environmental issues; improved education and training; and adequate use of materials and waste management. Others include: identification of significant priorities and long-term preparation for the management of social problems, awareness-raising and public and government awareness-raising. Mathiyazhagan, et al. (2018) found that particular motivating factors should be focused on the collection of GSCMs from the Indian construction industry. Their research revealed the important role in the reception of GSCM that the government, industry, manufacturers, consumers, internal and environmental variables play. In other previous studies and interviews with specialists in the Green Supply Chain Evaluation Research in developing countries, Elbarkouky and Abdelazeem (2013) introduced GSCM. The study explores how, among others, regulation and ISO accreditation, consumer interest and pressure, government support through motivators and tax cuts, pressure on the public and NGOs, supplier integration, and other factors affect airline safety. Ojo et al. (2014) analysed the introduction of GSCM with major enablers in the construction industry in Nigeria, including: cost reduction, enhanced brand awareness and improved competitive advantage. Olanipekun et al. (2017) examined the incentive and dedication of the owner to enhance the implementation and efficiency of green building projects, including the study findings; improvement in the quality of life of consumers and users of green structures; an altruistic belief in

unsustainable activities and their environmental and human impacts are genuine; credibility improvement. Construction of green buildings, monetary and non-money-related benefits from public entities and the consumer trust are other enablers. Scholars such as Dasher and Schani (2013) and Niemann et al. (2016) have recognised that the enablers of the required GSCM include government benefit, public pressure and consumer awareness, social and ecological responsibility, as important factors, combined with monetary advantages. Onososen and Osanyin (2019) discussed enablers and challenges with regard to the use of green buildings in Lagos, Nigeria, in their review of green buildings. Government funding for green building, labelling requirements, money-related motivators, increased visibility, and a sustainable housing policy were found to be the enablers of green building use. Some of GSCM's enablers and their corresponding sources are shown in Table 1.

Table 1
Green Supply Chain Management Enablers

ID	Enablers of GSCM	Sources
E1	Increase in awareness and sensitization about GSCM	Wyawahare and Udawatta (2017), Hansen 2011, Hajikhani et al., 2012
E2	Availability of an enabling environment	Mathiyazhagan et al. (2018), Onososen and Osanyin (2019)
E3	Improvement in the quality of life of users of green projects	Wyawahare and Udawatta (2017), Ojo et al. (2014), Olanipekun et al. (2017)
E4	Increasing market appeal for green construction projects	Olanipekun et al. (2017)
E5	Support from government via incentives and tax rebates	Mathiyazhagan et al. (2018), Elbarkouky and Abdelazeem (2013), Dasher and Shani (2013), Niemann et al. (2016), Onososen and Osanyin (2019)
E6	Support from top management	Wyawahare and Udawatta (2017), Olanipekun et al. (2017)
E7	Pressure and demand from customers and end users	Mathiyazhagan et al. (2018), Elbarkouky and Abdelazeem (2013), Ojo et al. (2014), Dasher and Shani (2013), Niemann et al. (2016)
E8	Education and training	Wyawahare and Udawatta (2017)

3. Research methodology

The ISM strategy was developed to solve complex problems. As an experimental technique that can be used by people or groups to establish connections between the various segments of the mind (Mabrouk et al., 2020; Raut, et al., 2017; Shibin, et al., 2016). As of 2017, ISM is a technique that combines a structured model with a wide variety of directly linked components at a point in time.
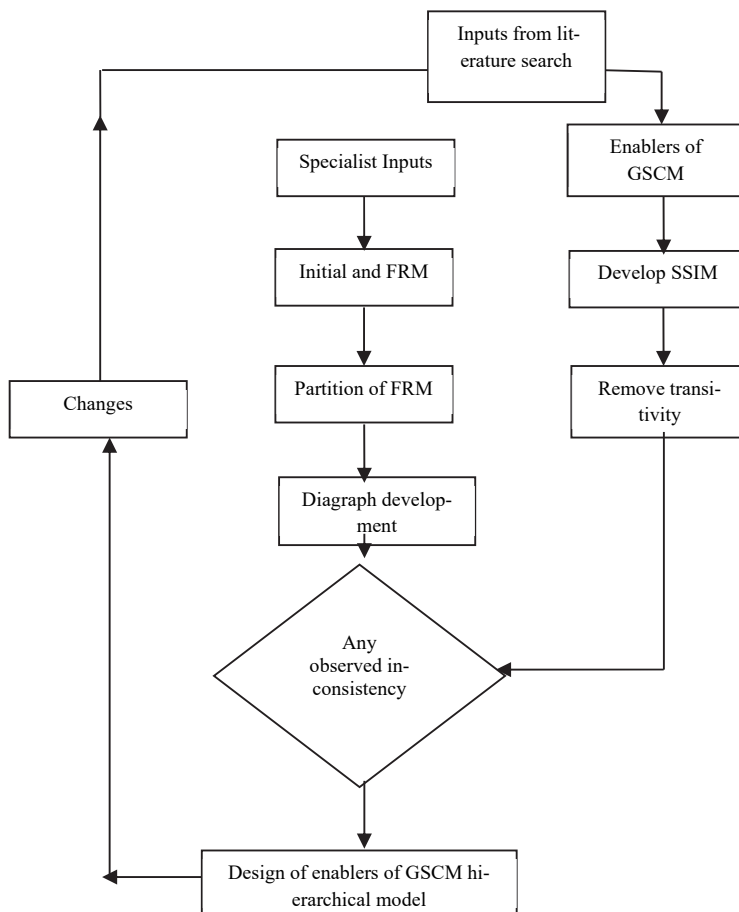

Fig. 1. ISM Model for Enablers of GSCM

As Saka and Chan (2020) noted, the ISM model has been employed in the study of emergent complex systems by breaking them down into different subsystems using expert knowledge and experience. The ISM is an effective method for assessing the strength of the different parts of the composite framing analysis (Ahuja et al., 2017; Raut, et al., 2017; Shibin, et al., 2016). Efficiency has been made in various genuine applications to evaluate obstruction power investigation of driving and dependence on GSCM execution, to look at collaborations between GSCM enablers, to advance the shared relationship between GSCM enablers. (Alzebdeh et al., 2015; Saka and Chan, 2020) In this part, the ISM approach is explained step by step, and the ISM model is shown as an example in Fig. 1.

3.1 Data collection

The assessment process using ISM usually involves a meeting with several specialists while also consulting with other various field information and experience. The main focus of the investigation is on GSCM experts (i.e., high-level construction managers) in decision-making situations throughout different construction firms in Imo State of Nigeria. In the study, 45 specialists participated as part of its sample size. Specialists (professionals) consisting of project managers, quantity surveyors, builders, architects, estate surveyors, engineers, etc. were contacted for the study. a visit to ISM to learn more about GSCM and green building in Nigeria. Still, only 32 specialists responded to the survey. One chooses one's professional specialists based on their years of experience. It is shown in Table 2 that the majority (approximately 90%) of respondents have been involved in construction for a significant period of time. A visit to respondents with usable ISM structured questionnaires was used to reach specialists who are far away, with a view to encouraging accessibility and the unwavering quality of the responses (Saka & Chan, 2020). A survey was conducted of all the physicians, and their opinions were sought in regard to the connection between the four factors, as well as their understanding. Also, the inclinations were collected for connections between the four factors which received the most ratings. The main purpose behind the 71.1% success rate could be clarified by the details of the ISM Overview Structure, which is time-consuming and requires additional clarification from the researcher. This scenario is considered appropriate because it allows the focus to be put on the expertise of the researcher, rather than the number of questionnaires returned. Subsequently, we obtained the entire responses and used these responses for analysis. The following table shows the geographic and specialist distribution of each job (Fig. 2).

Academic qualification · Specialties · Years of Industry experience
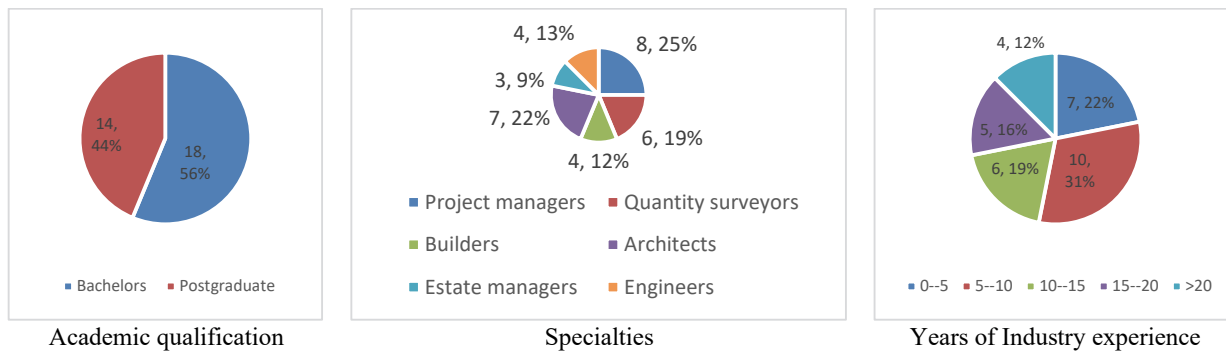
3.2 Development of ISM model

We use the accompanying steps to establish different hierarchical connections between the factors that influence the connection between the GSCM enablers.

Stage 1: Identifying a lot of variables: in this step, the components impacting enablers of GSCM connections that must be detected, and this can be achieved through a literature review, previous investigations, as well as expert assessments at a designated place of study, and so on. Therefore, to determine the logical relationship between the factors that impact GSCM's enablers.

Stage 2: Construction of a structural self-interaction matrix (SSIM): Connections between basic variables are introduced in the SSIM using a pooled response from the specialists. The link between factor i and factor j was characterised by the following symbols:

- V: Factor *i* can influence factor *j*
- A: Factor *j* can lead or have impact on factor *i*
- X: Factors *i* and *j* aid to accomplish or impact one another
- O: No connection exists between factors *i* and *j*

Table 2 shows the structural self-interaction matrix and thus constitutes the first step in the formation of the ISM model. The table below shows only the inter-relationship that exists between the eight SRRM elements. As you can see, more than half of the matrix is filled with letters (VAXO). The next step is to complete the full matrix on the basis of the criteria for the development of the initial reachability matrix (IRM) as stated earlier. The matrix is then developed by checking its transitivity (Ahuja et al., 2017; Mathiyazhagan et al., 2013; Raut, et al., 2017; Shibin, et al., 2016).

Table 2
Structural Self-Interaction Matrix (SSIM)

	E8	E7	E6	E5	E4	E3	E2	E1
E1	V	V	V	O	O	A	V	X
E2	O	A	A	A	V	V	X	
E3	V	A	V	A	A	X		
E4	V	V	V	V	X			
E5	V	V	V	X				
E6	V	O	X					
E7	O	X						
E8	X							

Stage 3: Construction of the reachability Matrix: by replacing the four letters (V,A,X,O) with 1 and 0 according to a specific case, the SSIM value already obtained is then taken out to form a binary grid. The replacement rule used for the purposes of this investigation is set out in Table 4. Whenever there is an element that connects two variables to V, A, X, and O, the variables *i j*) and (*j, i* of the initial accessibility matrix (IRM) are translated into details in (table 4) comparable numbers. For example, if *i j*) in the SSIM is *X*, then *i j*) in the IRM is 1, and (*j, i* is 1. The IRM factors in Table 4 were designed to comply with these principles. We used the 'transitivity rule' to construct the final reachability matrix (FRM). For example, the transitivity guideline depends on; if variable a, is identified as b, such that b is connected to c, at that point a is fundamentally identified as c. In the actual sense of the term, any transitive associations between different factors should be investigated. We can conclude and get the Final Reachability Matrix (FRM) in Table 3 beneath.

Table 3
Initial Reachability Matrix (IRM)

	E1	E2	E3	E4	E5	E6	E7	E8
E1	1	1	0	0	0	1	1	1
E2	0	1	1	1	0	0	0	0
E3	0	0	1	0	0	1	0	1
E4	0	0	0	1	1	1	1	1
E5	0	0	0	0	1	1	1	1
E6	0	0	0	0	0	1	0	1
E7	0	0	0	0	0	0	1	0
E8	0	0	0	0	0	0	0	1

Table 4
Final Reachability Matrix (FRM)

	E1	E2	E3	E4	E5	E6	E7	E8	DrP	Rank
E1	1	1	0	0	0	1*	1*	1*	5	I
E2	0	1	1	1	0	0	0	0	3	II
E3	0	0	1	0	0	1	0	1	3	II
E4	0	0	0	1	1	1*	1	1	5	I
E5	0	0	0	0	1	1*	1	1	4	III
E6	0	0	0	0	0	1	0	1	2	IV
E7	0	0	0	0	0	0	1	0	1	V
E8	0	0	0	0	0	0	0	1	1	V
DeP	1	2	2	2	2	5	4	6	24/24	
Rank	V	IV	IV	IV	IV	III	II	I		

Note: 1* indicates the transitivity values.

Stage 4: Reachability matrix partitioning: GSCM enablers are divided into different stages at this stage. When using the Final Reachability Matrix, we need to set up the Reachability and Previous Sets. The Reachability Sets comprise the enablers of GSCM themselves and the various components that could be influenced or guided by it. Antecedent sets, again, comprise the GSCM enablers and the various components that can influence the factor in question. Convergence set is reached through the point of intersection between the reachability and the antecedent set. For a given factor, in the event that the accessibility set is equal to the intersection set, this component is then sorted and placed in the first level and given the highest priority.

Table 5
Level Partition-iteration 1

Driver	Reachability Set	Antecedent Set	Intersection	Level
E1	E1,E2,E6,E7,E8,	E1	E1	
E2	E2,E3,E4,	E1,E2,	E2	
E3	E3,E6,E8,	E2,E3,	E3	
E4	E4,E5,E6,E7,E8	E2,E4,	E4	
E5	E5,E6,E7,E8	E4,E5	E5	
E6	E6,E8,	E1,E3,E4,E5,E6,	E6	
*E7	E7,	E1,E4,E5,E7,	E7	Level I
*E8	E8,	E1,E3,E4,E5,E6,E8,	E8	Level I

As a result of the completion of the first phase, the factor in question is granted level I status and disposed of. The cycle continues to locate subsequent levels of components with a view to completing the phase of each factor (Tables 6-10).

Subsequently, the consequences of the accompanying cycles, in which the factors are represented at the level, are achieved. Distinguishing proof of the level of the aids in enabling the diagram to be drawn. The factors can therefore be influenced by different factors. Elevated levels show that these factors are placed at the lower part of the progression and that they can invariably affect the different factors of the GSCM enablers (Ahuja et al., 2017; Mabrouk et al., 2020; Mathiyazhagan et al., 2013; Raut, et al., 2017).

Table 6

Level Partition-iteration 2

Driver	Reachability Set	Antecedent Set	Intersection	Level
E1	E1,E2,E6,	E1	E1	
E2	E2,E3,E4,	E1,E2,	E2	
E3	E3,E6,	E2,E3,	E3	
E4	E4,E5,E6,	E2,E4,	E4	
E5	E5,E6,	E4,E5	E5	
*E6	E6,	E1,E3,E4,E5,E6,	E6	Level II

Table 7

Level Partition-iteration 3

Driver	Reachability Set	Antecedent Set	Intersection	Level
E1	E1,E2,	E1	E1	
E2	E2,E3,E4,	E1,E2,	E2	
*E3	E3,	E2,E3,	E3	Level III
E4	E4,E5,	E2,E4,	E4	
*E5	E5,	E4,E5	E5	Level III

Table 8

Level Partition-iteration 4

Driver	Reachability Set	Antecedent Set	Intersection	Level
E1	E1,E2,	E1	E1	
E2	E2,E4,	E1,E2,	E2	
*E4	E4,	E2,E4,	E4	Level IV

Table 9

Level Partition-iteration 5

Driver	Reachability Set	Antecedent Set	Intersection	Level
E1	E1,E2,	E1	E1	
*E2	E2,	E1,E2,	E2	Level V

Table 10

Level Partition-iteration 6

Driver	Reachability Set	Antecedent Set	Intersection	Level
*E1	E1,	E1	E1	Level VI

Stage 5: Setting up an ISM: Setting up an ISM model for GSCM enablers was achieved with the help of a level of agreement with the component groupings introduced in Tables 6 to 10. The canonical grid is used to create a diagram, which was first made using transitivity, thus acquiring the last graph by wiping out the indirect ties. In the long run, as shown in Fig. 3, the diagram is changed by means of an ISM model. Progress establishes a collective link between the factors in order to represent the impact chain that exists within the system.
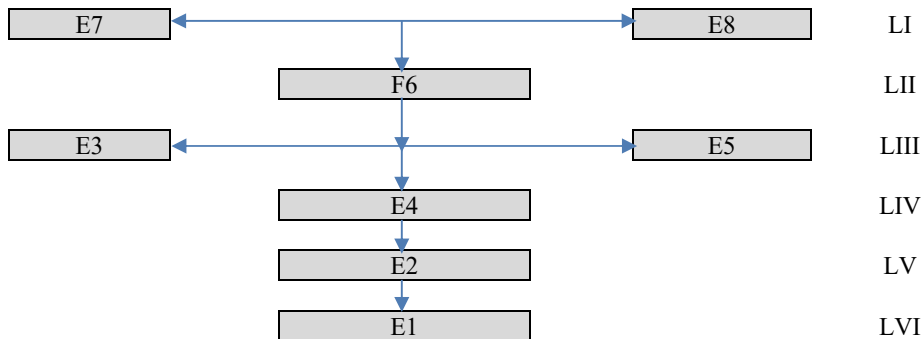

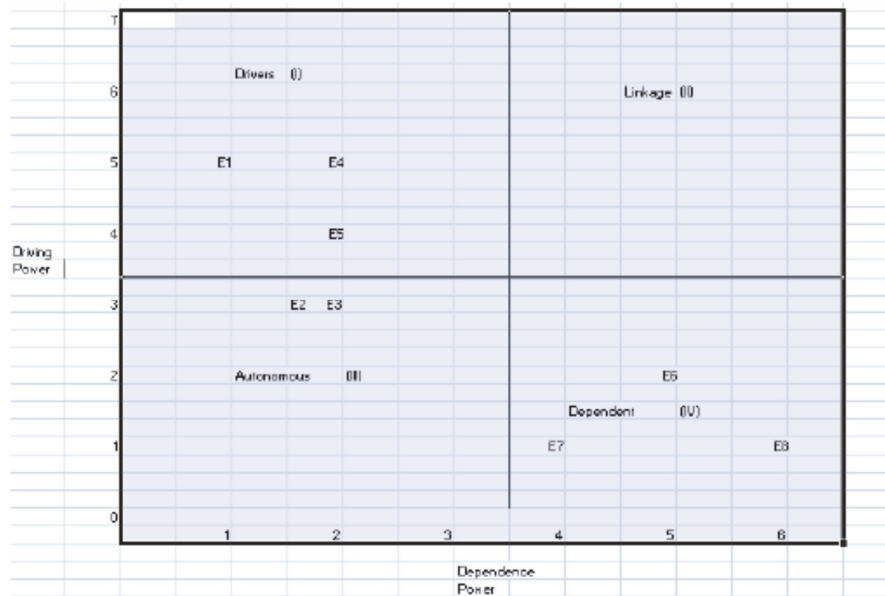**Fig. 2.** ISM for Enablers of GSCM on Construction projects

Fig. 3. Diagraph and MICMAC Analysis of Enablers to GSCM

The MICMAC (Matrice d'Impacts croises-Multipication applies classification analysis) is used to arrange GSCM enablers via dependent, linkage, autonomous and independent components that rely on dependence and driving power (Table 5). This is used to segment the GSCM enablers into a four-group outline (diagram) as shown in the figure above.

Dependent Group: are enablers with a weak driving force but a strong dependency power. They are subject to different enablers and can be used to address related enablers. They denote negative results. These enablers include (E6) support from top management, (E7) pressure and demand from customers and end users, and (E8) education and training.

Autonomous Group: are enablers with weak driving power and weak dependence power. This class is disconnected from the key framework and has few connections. The enablers in this class are (E2) the availability of an enabling environment and (E3) the improvement of the quality of life of users of green projects.

Linkage class: these are enablers with both solid driving force and dependence power. These enablers have an impact on different enablers and have an input on themselves. No enablers are found in this category.

Independent category: These are enablers with a strong driving force but still with a weak dependence power. They are considered to be the most significant enablers. These include E1 awareness-raising and awareness-raising of GSCM, (E4) increasing market appeal for green construction projects and (E5) government support through incentives and tax rebates.

4. Discussions

A lot of interesting findings on the enablers of GSCM and its implementation on construction projects via the application of ISM was observed in this study. The paper offered some new insights with regards to the successful implementation of enablers of GSCM. As part of the outcome of this study, this paper endeavored to construct a hypothetical system of enablers of GSCM by utilizing a two-staged methodology. In the primary stage, we utilized a review of related literature in distinguishing proof of enablers with the aid of experts using semi-organized poll for modeling of transitive connections and causal circles in the structure via ISM. Identifying the enablers to GSCM on construction projects assists experts with the methodology and strategy to deploy on its adoption on construction projects. We utilized ISM, an intuitive, participative methodology, for recognizing the collaborations and transitive connections between enablers of GSCM. Pressure and demand from customers and end users (E7), and education and training (E8) evolved at the top general level of the model. Support from top management (E6) was next coming at the subsequent (second) level, an indication that gaining maximum support from the strategic level of an organization would help in facilitating the adoption and implementation of GSCM in the realization of the firm's construction project's objectives. Away from the transitive linkages between the enablers will help unmistakably portray the activities that are to be taken to accomplish the ideal level in the order. The result of the examination will likewise provide the correct guidance for the arrangement and deployment of GSCM. MICMAC examination of enablers (figure3) shows that, all factors considered in this investigation are important to clarify the framework of enablers of GSCM given the outcome of the independent factor groups.

MICMAC additionally shows that (E1) increase in awareness and sensitization about GSCM, (E4) increasing market appeal for green construction projects and (E5) support from government via incentives and tax rebates are the driving factors in the

structure and are described by their solid driving force. The model likewise portrays no enabler as a linkage variable with solid reliance and driving force. Any adjustment in the framework or different factors will influence the linkage factor category. So in general, this investigation is special in its sort as it obviously represents the positive and negative powers that sway the plan and usage of GSCM. Consequently, (E1) increase in awareness and sensitization about GSCM implementation on construction projects in Imo State, Nigeria. The client is the essence and key element for any successful business entity to thrive. Organizations must design, manufacture and produce products as well as provide services that would satisfy end users' needs and expectations. The findings of this study is also consistent with that of Elbarkouky and Abdelazeem (2013); Wyawahare and Udawatta (2017) and Onososen and Osanyin (2019). Others are, the increasing market appeal for green construction projects as an enabler to GSCM implementation on construction projects in Imo State, Nigeria. As opined by (Wibowo *et al.,* 2018), the design of green projects should be an utmost priority for purposes of identifying any possible effects on the project with regards to environmental impacts. The idea behind the design of green projects is to minimize the environmental impact emanating from the construction and design processes. Hence, the purpose of constructing a green project is to design the projects in an environmentally friendly manner. With all these in mind, it is incumbent for practitioners within the industry to create awareness about the benefits and essence of 'greening' with regards to building construction projects. The finding from this study collaborates with that of Olanipekun *et al.* (2017). Support from the government via incentives and tax rebates is also a key enabler to GSCM implementation on construction projects in Imo State, Nigeria. This implies that governments at both the State and National levels are not doing enough to provide some form of support to built environment professionals to enable them venture into GSCM implementation on their respective construction projects. As opined by Mathiyazhagan *et al.* (2013), legislation and regulation are critical instruments that are very much necessary for the proper functioning of business enterprises and its environment. Hence government's support through incentives and tax rebates are important ingredients within which organizations must operate. The finding from the analysed data supports previous finding of Dasher and Shani (2013), Elbarkouky and Abdelazeem (2013), Mathiyazhagan *et al.* (2018), Niemann *et al.* (2016) and Onososen and Osanyin (2019).

5. Conclusions

The major contribution of this research is the development of the model and the literature used to select the enablers. To assess the GSCM implementation, the selected implementation enablers were assigned to the six levels. The survey found that increased awareness and awareness of sustainability, as well as government support for GSCM through tax rebates, are the main drivers of green construction. Given these factors, the GSCM process can be better implemented with construction project-based organisations. The variables are at the weakest level of the ISM model and thus are the most influential. It is expected that the results of this research will serve to advance the use of GSCM for the construction industry. It is up to the experts and various construction business partners to provide more consideration to the distinguished drivers of GSCM appropriations so that the important assistance needed for the full implementation of the greening strategy can be provided. As a result, this review suggests that government, customers and experts are all essential in the implementation of a government services contract model.

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