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FACILITY MANAGEMENT: PRESENT TRENDS AND EMERGING OUTLOOK

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Abstract: This paper's goal is to systematize academic research works written on facility management which were published from year 2006 to 2020. It intends to ascertain the following: (i) whether facility management, a scientific discipline, has attained maturity; (ii) whether the strategic shift presently taking root in facility management practice has been embraced by researchers to date; and (iii) identify the most problematic areas for future research. A total of eighty eight (88) papers were analyzed in depth, and the results revealed that studies conducted on this scientific discipline are yet to attain maturity, thus constituting a veritable field for future research by scholars and practitioners who both have ample opportunity to genuinely contribute towards the advancement and growth of this field of research.

Keywords: facility management, facilities management, analysis, review, analyzed.

[1]INTRODUCTION

This research paper examines available literature on facility management (or FM) with a focus on its broader field of application such as the real estate industry, as well as the real estate value chain which has evolved over the years to envelope several players that act strategically to create real estate value (Roulac 1999; Barett 2000; Mari 2011). As observed by Mari and Poggesi (2014), these players center around three major areas of activity i.e. property, asset and FM; and of the three FM has, unfortunately, remained the least area of focus by academicians over the years. Hence the interest in this research.

Over time, several definitions have emerged from renown global organizations. For example, International Facility Management Association (IFMA, 2012) described FM as "the practice of coordinating the physical workplace with the people and work of an organization, which integrates the principles of business administration, architecture, and the behavioural and engineering sciences". The British Institute of Facility Management (BIFM, 2010) on the other hand referred to FM as "the integration of processes within an organization to maintain and develop the agreed services which support and improve the effectiveness of its primary activities". In spite of the raging debate on FM definition by academicians and practitioners, they seem to agree on the fact that the contribution of FM to the organization goes beyond the cost-cutting perspective ascribed to it over the years to something broader (Heng *et al*., 2005; Alexander and Price, 2012). The emphasis needs be made that apart from seeking to minimize running costs and maximize usable space, FM also seeks to support and enhance both the core and non-core activities in an organization, which must enjoy the recognition and support of management. This point is buttressed by Noor and Pitt (2009, pp214-215), who explained that FM helps in "shaping" the business, and not just "supporting" it. This is why a strategic approach to FM is necessary.

Arising from these considerations, this research work will be reviewing recent publications on this subject with a view to analyzing whether academia has come to terms with this relatively new phenomenon. In different studies, many authors have theoretically reviewed generic topics on real estate, with studies by Ventovouri *et al.*, (2007), Drion *et al.*, (2012) and Jensen *et al.* (2012), among others, focusing on FM. Relevant to the aim of this research is the study conducted by Ventovouri *et al.*, (2007) which was a systematic literature review of papers centered on FM, and covering the period 1996-2005. Findings emerging from this research work revealed that for most of the studies reviewed, the hypotheses and more valid data analysis techniques were, in the main, missing. Findings from a more recent research conducted by Mari and Poggesi (2014) covering the period 2006-2014 supported this claim, and arrived at the conclusion that only few of the papers reviewed stayed focused on the FM. Although this finding is typical of an emerging area of research, it explains, somewhat, why FM remains largely misunderstood, especially in the general business domain (McLennan, 2004).

Propelled by the increasing global importance of FM and dearth of systematization of findings, this article will attempt a systematization of FM-centered papers published from 2006 to 2020 to facilitate a better understanding of: (i) whether the indispensable rigour that will guarantee a better understanding of FM as a scientific discipline, and a specific research area,

has been achieved; (ii) whether the academia has full understanding of the strategic shift occurring in FM practice; and (iii) identify the areas that pose more challenge for future research.

Initial findings of this review revealed that studies on this subject are still evolving, pointing at the relative newness of research efforts on FM. Although most researchers and academicians recognize the strategic role of FM in firms, theoretical and empirical analyses are yet to have a full grasp of the subject. This is especially as most papers in this area tend to dwell on specific issues, which is an indication of scholars' lack of appreciation of the value-adding potentials of the topic.

Consequently, this paper has described the research methodology, the nature of the dataset, analyzed the contents of papers selected for the research by grouping in clusters in accordance with the main thrust of the research. Conclusions are drawn from findings which set the tone and provide a basis for future research.

²RESEARCH METHODOLOGY

This article has adopted the 'systematic literature review' method as the research methodology that will do justice to the research goal of systematizing FM research, in the traditional process established by researches conducted by Cafferata *et al.* (2009); Abatecola *et al.,* (2013a, 2013b); Mari and Poggesi, (2013, 2014). The choice of only peer-reviewed articles published in Journals (excluding books, reports, conference proceedings and unpublished works) was done to promote quality control. The review was restricted to FM-centered articles published in English language, from January 2006 to January 2020, and with FM featuring as keyword in the abstract and analyzed from managerial perspective. The research sample comprised a total of 88 published papers.

Table 1: Summary of results

Phase	Description	Results
1	Articles having the selected keywords in the abstract	357
2	Articles with substantially relevant abstracts	140
3	Articles with effectively relevant text	88

Table 2 contains a list of journals and the number of papers appearing in each of them; with evidence that each journal has published more than two articles.

Table 2 Distribution of articles by journals

Journal	No. of papers
Facilities	39
Journal of Facilities Management	17
Journal of Corporate Real Estate	7
International Journal of Strategic Property Management	6
Journal of Retail and Leisure Property	5
International Journal of Productivity & Performance Management	5
Production Planning and Control	4
Journal of International Real Estate and construction studies	3
Civil and Environmental Research	2
Total	**88**

The papers reviewed were distributed among a total of 19 journals; however, two of the journals contained 64% of them, with *Facilities* having 39 articles (44%) and *Journal of Facilities Management* having 17 (19%). Interestingly, papers featured in these two journals as well as *Journal of International Real Estate and Construction studies* dwelled mainly on the analysis of FM issues. The little interest shown by other Journals on FM issues suggests that FM issues have yet to attain maturity, beyond constituted practitioners who form the bulk of its restricted audience. According to Price (2007) and Ishizaka and Blakiston (2012) all hope is not lost, as rigorous research can still throw up good publications on this topic.

In papers analyzed, only 26% are theoretically based. Table 3 has captured some of the countries covered by this research, and the number of papers from each.

Table 3 Countries covered by the research

Country	No. of papers
United Kingdom	13
United States of America	6
Italy	6
Nigeria	5
Australia	4
Hong Kong	4
Germany	4
Finland	4
Singapore	4
Malaysia	3
Sweden	3
Thailand	3
Ghana	3
Republic of South Africa	3
Israel	2
China	2
Denmark	1
Europe (Nordic Countries)	1
Scotland	1
Switzerland	1
Uganda	1
Indonesia	1

To manage the 88 selected publications, they have been categorized according to their specific purpose, leading to the emergence of four clusters.

Table 4 Distribution of selected publications by topics

Cluster	No. of papers
Strategy	31
Performance	24
Innovation	19
Operation	14

[3]INTERPRETATION OF RESULTS

The findings arising from the identified clusters are discussed.

I. Strategy

Over the years, scholars and practitioners have devoted more attention to the cost-cutting perspective of the FM and paid little attention to its strategic contributions to the overall organization, and underestimated its potential contribution in terms of added value through innovation of the firm's services and processes (Lehtonen and Salonen, 2006; Coenen *et al.*,2013). Hitherto, FM strategies have been mere appendages of the main strategies of organizations (Chotipanich and Lertariyanum, 2011), but in recent times the orientation has started to change with organizations increasingly adopting a strategic approach that is geared towards proper management of their facilities; and as observed by Pitt *et al.,* (2011a) this perspective is still at the teething stage.

This is at variance with the traditional approach to FM where organizations tend to favour the outsourcing of their buildings support services in order to stay focused on their core business activities. In this research, some papers analyzed (Jensen, 2010; Cigolini *et al.,* 2011; Ishizaka and Blakiston, 2012; Coenen *et al.,* 2013) found that one of the major reasons for outsourcing FM services include, among others, cost reduction, organizational efficiency or creation of added value. The very idea of outsourcing FM services to cut costs could be risky to the firm, as it could lead to any of the following scenarios:

improper management of the relationship with its service provider; the outsourcing strategy may not fit well with the firm's overall strategy; and, the firm may not adequately monitor both the quality of services provided and the relationship with its customers (Kadefors, 2008; Ikediashi *et al.,* 2012; Ishizaka and Blakiston, 2012; Natukunda *et al.,* 2013). This could lead to failure of the outsourcing strategy and negatively impact the firm's performance.

Studies conducted by Chotipanich and Lertariyanum, (2011) and Coenen *et al.,* (2013) which analyzed the outsourcing strategies both in terms of cost reduction, innovation and quality improvement, argued that high levels of innovation and quality depend on the existence of a structured co-creation process between firms and customers. This co-creation process will yield fruitful results only when adequately planned coherently with the specific strategic goals of the firm.

This research has revealed the opinions of some authors (Lehtonen and Salonen, 2006; Giachetti, 2012; Povey and Peach, 2013) who believe that alliances, affiliations or consortiums could serve as effective ways of managing facilities with positive impact on the firm's overall performance. Similarly, Pitt *et al.,* (2011a, 2011b) in their analysis of airport management, pointed out that to effectively manage facilities and successfully satisfy both owners and customers of the airport, strategic alliances, agreements and networks are necessary and must align with FM functions from other airports or with other FM firms. The authors observed that the outsourcing of the FM function is having a crucial impact not only on the income accruing to the airport, but also on customer satisfaction while also positively influencing innovation development.

Brochner's (2008) analysis of the strategy of outsourcing FM, focused on the construction industry in Sweden. His analysis compared outsourcing to vertical integration of the Swedish construction firms. HIs findings showed that firms favourably disposed to vertically integrating its FM functions were the ones more opened to innovation, with employees having higher levels of education, and potentially more loyal customers. In their analysis of the traditional approach to managing Italy's healthcare sector, Ciarapica *et al.,* (2008) found that despite the recent decision of Italy's bigger hospitals to adopt the outsourcing strategy, service quality has remained largely unsatisfactory owing to bottlenecks occasioned by bureaucracy and the absence of big FM providers at the national level. Clearly, the adoption of FM strategies is still at infancy stage.

The story of Finland is not so different going by the analysis of Ventovuori (2007) which underpinned the importance of competencies for FM service providers. They suggested the use of *ad hoc* bundles of service solutions to meet various client needs. In a study of the strategic selection of a maintenance system for Australia, Fraser (2014) emphasized the importance of developing a maintenance culture within organizations and having a reliable maintenance system in place. He recommended models such as Total Productive maintenance (TPM), Condition-based maintenance (CBM), Condition monitoring (CM), among others. FM practice is still at infancy stage in Nigeria. Studies by Oladokun (2011) and Aliyu *et al.,* (2015) revelaed that the traditional approach to managing facilities is still in force, especially in public buildings. This is compounded by the lack of the technical competencies required.

The perception in Africa and other developing countries indicates that the traditional FM practice prevails, and dismally in some cases. For instance, in separate studies conducted by Xaba (2012) and Wuni *et al.,* (2018) in South Africa and Ghana respectively, the authors found that there were no organizational structures in place for coordinating routine facilities maintenance, neither are there strategies in place for facilities maintenance using FM techniques. Oladokun (2011) and Aliyu *et al.,* (2015) in separate studies tracking FM practice in Nigeria found that the practice was generally poor and still at infancy stage with only few stakeholders showing appreciation for the huge potentials the topic holds for organizations. Most authors seem to suggest that the FM profession needs effective nurturing to enable it develop FM strategies that could boost firms' business potentials and promote rapid growth of FM practice to maturity as obtains in develop countries.

II. Performances

The model for measuring performance in most FM literature is obviously a new area of investigation. This probably explains the remarkable interest shown by scholars in tracking the performance of FM activities which they now see as the key to a business success. Available data show that after salary and wages, expenses that go into facility and real estate represents the largest chunk of a firm's operating costs. This implies that any improvement in FM effectiveness could bring about significant cost savings. Consequently, many instruments for measuring FM performance have evolved over the years, among which are: key performance indicators (KPIs) (Enoma and Allen, 2007; Lavy *et al.,* 2010; Meng and Minogue, 2011), benchmarking (Pitt and Tucker, 2008; Lai and Yik, 2011; Wong *et al.,* 2013), and the balanced scorecard (De Tomi *et al.,*2007). Where, KPIs are general indicators of performance which focus on critical aspects of outcomes, and are the most used indicators by most FM firms and practitioners, and are deemed to be the most effective for the following reasons adduced by Meng and Minogue (2011, p.480): (i) They are easy to use; (ii) they encompass several perspectives; (iii) firm's objectives and processes are linked to performance; and (iv) they facilitate performance improvement and increase client satisfaction.

For example, a list of 35 KPIs was proposed as performance measurement instrument by Lavy *et al.,* (2010, p.447) in their theoretical paper, to ascertain their applicability to different types of buildings and facilities. Generally speaking, KPIs could be grouped into four classes, namely:

a. Financial indicators: concern costs and expenses related to operation and maintenance, real estate, energy, building functions, etc.
b. Physical indicators: concerns the physical shape and conditions of buildings, conditions and systems.
c. Functional indicators: concerns the manner facility and buildings operate, as well as their appropriateness in terms of space adequacy and parking, among others.
d. Survey-based indicators: these indicators are the products of respondents' answers to survey.

The sheer number of KPIs and the challenge in reducing them is in itself a limit to research in this field and signposts the difficulties associated with FM. Other tools and models have been identified in this study. A holistic model that enables an appropriate measurement of financial and non-financial indicators of a facility was applied by Brackertz (2006). The activity-based cost model used for estimating FM costs and services was used by Diez and Lennerts (2009) in relation to the capacity and utilization of the operation unit of a German hospital.

Practitioners and scholars, alike, believe that performance measurement is not an end in itself. They advocate the need for performance management. Amaratunga and Baldry (2002) assert that "measurement is a tool for more effective management" and not an end in itself. As a result, a conceptual model referred to as a customer performance measurement system (CPMS) is proposed to acknowledge and test the importance of applying customer performance measurement, and thereby enhancing the sophistication of the strategic processes within FM (Tucker and Pitt, 2009). In their paper, Moss *et al.,* (2007) proposed a new performance management system which aims to ensure that service providers' performance aligns with the critical success factors of the client organization and provide the mechanism through which improvements can occur.

Yet to mature is the attention given to how servicing of facilities could positively impact the overall outcomes. Notwithstanding, there is a growing awareness by researchers that added value related not only to good/service, but also to the value/quality of the relationship existing between buyer and seller (Mari and Poggesi, 2014). As a result, many papers in this cluster showed interest in ascertaining the FM contribution to the organizational outcome, especially the health outcome and educational achievement. Leung *et al.,* (2006) in their article on the educational sector, analyzed the impact of FM on the working behaviour of teachers. The authors found that teachers' behaviour in two scenarios (old school buildings and new millennium school buildings) showed no significant changes, save for better performance of FM. In light of health outcomes, May and Pinder (2008) in their interaction with facilities managers of National Health Systems analyzed their thoughts with regards to their contribution to health outcomes, and concluded that available data presents no conclusive evidence of a correlation between health outcomes and FM. Despite these prevailing setbacks, recent research conducted by Price (2007); Morgan and Antony (2008) on this subject indicate that the design and management of the workplace has great impact on the performance of the organization. In other studies investigating the impact of FM services in healthcare delivery (Amos *et al.,* 2019) and public schools sectors (Wuni *et al.,* 2018) in Ghana, both authors revealed poor FM practices; adding that improved quality of FM service delivery systems could have significant influence on performance in both sectors.

III. Operation

Generally speaking, two broad approaches have been identified in literature (Taillandier *et al.,* 2011; Khazrai and Deuse, 2011) for maintenance plans, namely; the operational approach and the automated computer-aided approach. None of which is without its strength and weaknesses. For instance, the *automated computer-aided approach* guarantees maintenance plans for specific elements of the building such as *air-conditioning* (Kwak *et al.,* 2004); and *facade* (Mendes Silva and Falorca, 2009). However, the complexity involved with this approach makes it difficult to comprehend by decision-makers and non-experts. The use of this approach is also expensive in terms of both time and resources involved, since it deals with one building component at a time. The *operational approach* on the other hand is based on operational methods which rely essentially on the technical modeling of buildings. The diagnostic process is used to assess the technical state of buildings where experts assess technical criteria, be they quantitative or qualitative. And for each element, the approach suggests the actions needed for improvement. Some methods even suggest a hierarchy of actions based on technical scores involved. Though quicker and easier to implement, the operational method falls short of addressing the complex nature of the situation as a whole.

The need for more FM integration in the construction phase of the project is, consequently, proposed by Von Felten *et al.,* (2009). This view is supported by Das *et al.,* (2010) who believe that 20% of annual operating costs could be saved if FM is

introduced at an early stage of the project. It therefore begs the question why FM planning is not more consistently integrated into the construction process. Scholars have identified the following reasons as a response to the question: (i) higher initial costs and time required for the inclusion of FM planners; (ii) existing planning and construction processes constitute a hindrance; and (iii) difficulty of proving to owners the potential savings which will only be realized at the operational phase.

For this reason, scholars advocate the use of what they call the 'FM dashboard approach' which looks at a structured list of questions that enables the user consider and evaluate all FM relevant topics at each phase of the project. From this cluster, a change is advocated which is captured by Pitt *et al.,* (2006, p.164) thus: "The focus of the maintenance operation becomes an added value for the business and no longer the mere efficiency of the maintenance operation itself".

Also fast emerging is the need of FM for warehouses and shopping centers. As far as warehouses are concerned Ling *et al.,* (2008) suggest the incorporation of the tenant's requirements into the design of the warehouses. Through a survey of tenants of warehouses, the following emerged as the tangible facilities that will lead to higher customer satisfaction: user friendly designs, air-conditioned office within the warehouse, air wells along the loading/unloading bays, and back-up power supply. Similar considerations apply for shopping centers which lay emphasis on better service quality that leads to higher levels of customer satisfaction. This will foster strategic or long-term relationships boosted by FM service (Musa and Pitt, 2009).

IV. Innovation

This cluster captured papers that dealt with the twin issues of *sustainability* and *innovation*, with sustainability itself covering the three pillars of economic, social and environmental development. IFMA believes that sustainable FM enables an organization build and operate facilities in such a manner that meets organizational goals, enhances workers productiveness in the office space and boosts harmony of workers within the work environment. Consequently, Cooper (1998) analyzed the concept of environmental management as he focused essentially on environmental sustainability. The author referred to environmental management as the processes and practices an organization deploys to achieve reduction, elimination and prevention of negative environmental impacts arising from their business.

Interest on this topic is gaining currency and momentum among scholars and practitioners owing to the fact that residential and commercial buildings play huge role in the total energy consumption and atmospheric pollution arising therefrom. According to Aaltonen *et al.,* (2013) about 80 - 90% of climate change impacts resulting from commercial buildings occur during the operational phase of the building. Hence the concept of green buildings evolved and has since become an important area of research, as it talks about structures that have less impact on the environment than conventional buildings. It is still in its infancy at the moment. Equally evolving is the role of FM and facility services in the field of green buildings. Studies analyzed in this area stress that FM services must support user organizations in their effort to become more environmentally friendly (Hodges, 2005; Roper and Beard, 2006; Wood, 2006; Junnila, 2007). Facility managers, who are knowledgeable about the entire lifecycle of a building, are expected by end-user organizations to provide environmental and energy-related services (Nousiainen and Junnila, 2009) for the same reason they are able to effectively operate them (Hodges, 2005). Worthy of note is the fact that most of the papers analyzed, observed the difficulty of applying the sustainability approach in organizations. Elmualim *et al.,* (2010) in particular listed the challenges to include FM's failure to view sustainability as a high priority in organizations, time constraint, lack of sufficient knowledge, and senior management's lack of commitment to practicing sustainable FM. The case is bad in less developed countries. Penny (2007) analyzed hotels in Mexico and China and found that efforts are limited to cost-savings and regulatory compliance. It is even worse in developing countries such as Nigeria, Ghana and Republic of South Africa. In Nigeria, for instance, different scholars on the subject, reported that FM practices minimally addressed sustainability issues (Oladokun, 2011; Adewunmi *et al.,* 2012; Aliyu *et al.,* 2015).

Emerging from the above scenarios is that environmental management is not construed as an important FM tool for enhancing organizational competitiveness and productivity. To promote sustainable practices, scholars recommend training and research. Lewis *et al.,* (2011) in particular, analyzed three different studies, investigated energy and maintenance management practices, and arrived at the conclusion that the strong link existing between both is not widely accepted in practice. In their analysis of American and European organizations, Nousiainen and Junnila (2008) stressed that big international end-user organizations have new sets of expectations of FM companies such as the provision of services support for the environmental management of their customers. Key among environmental objectives are: energy efficiency, climate change and waste management, in addition to active reporting and support services for environmental management.

As for *innovation* in the FM sector, regrettably, not many scholars have made forays into investigating the topic. The few that have made attempts are: Cardelino and Finch (2006); Pitt *et al.,* (2006); Goyal and Pitt (2007); Noor and Pitt (2009); and Scupola (2012). Even the few that did, most of them approached it with lots of caution. For example, Cardellino and Finch's (2006) research did not focus entirely on innovation, but was merely interested in ascertaining how innovation emerges and how it spreads across the organization. The authors assert that innovations are generally "one-shot commitments at the early stage". Different scholars have discovered that FM organizations are especially very active with service innovations in the UK, even though the process of innovation rarely has an established or formalized path. Scupola (2012) in his analysis of FM practices in Denmark discovered a somewhat mixed scenario between FM organizations and FM services customers. He found that big FM providers (who perceive themselves as being innovative) embrace innovation as part of their strategic agenda, develop innovation strategies, and establish innovation laboratories. FM service customers, with their own FM department, on the other hand, present mixed results. While some have clear innovation strategies and perceive innovation as a strategic priority, others that maybe innovative often perceive themselves as not being innovative. Business model innovations are the credible innovations found in this study which, in the main, take the form of customer-supplier partnerships. As a matter of fact, partnerships between FM providers and customers is becoming the norm that fosters innovation and decreases costs. This form of innovation has been recommended by scholars such as Goyal and Pitt (2007), Noor and Pitt (2009), and Lindkvist and Elmualim (2010). While Lindkvist and Elmualim (2010), in particular, stress that innovation in FM does not occur in isolation to the organization; Goyal and Pitt (2007) maintain that innovation that is achieved through a partnership between organizations maximizes the opportunity for them to think and act beyond organizational boundaries, thereby generating aspirations, knowledge and skills of all stakeholders who work to gain not only profits but competitive advantage as well. Adding that innovation should not be a sporadic event but a real and shared mindset for business organizations at all levels.

[4]CONCLUSIONS

This research effort has systematized papers on FM that have been published by peer-reviewed journals from 2006-2020 to enable better understanding of how mature research on FM is, and to ascertain if scholars are genuinely aware of the immense contribution a strategic approach to FM could make towards the overall growth and success of an organization. And where that has been achieved, to suggest the implementation of this approach within the management of the company. This systematization of academic works on FM since 2006 has confirmed one thing; that research on this topic has yet to mature, and that even if the gradual shift towards a more strategic perspective of analysis is on the rise, more of it is required and should be seriously advocated and promoted by major stakeholders. Having established this point, research findings show that in the recent years, research on this topic has encountered challenges that could be characterized as follows:

a. Almost all the papers analyzed are based on single case study analysis, making it difficult to generalize results;
b. All of the technical issues analyzed have been investigated using a descriptive approach;
c. There is a general lack of connection between the analyzed FM practices and most renown management theories.

The above considerations have helped to confirm one major outcome - that only practitioner-oriented journals, which are few in number, have demonstrated genuine interest in FM, which is largely responsible for its little visibility within the academia. This isn't encouraging, especially when one considers that after salary and wages, the resources (financial and human) deployed on facilities and real estate account for the largest part of an organization's operating expenditure. Without doubt, this reality should elevate the importance of FM for companies, and compel a new approach to dealing with it. Furthermore, research should be intensified and more structured frameworks adopted for implementing both quantitative and qualitative research. This new approach to research has huge potentials for stimulating scholars' interest to engage in more research on the topic, with broader management themes that will enable higher visibility for FM studies. For future research on the topic, perhaps academia and practice could mutually benefit from comparative inter-national approach, as doing so could facilitate best practices while also sharpening national policies that are basically dedicated to the management of critical facilities. It needs be mentioned that business orientation, especially for big organizations, should be directed towards incremental doses of environmental issues. Furthermore, effective management of FM in terms of sustainability issues, needs more vigorous investigation and attention to give FM practices more vibes and appeal. When reduction in carbon dioxide (CO_2) emissions and/or the reduction in energy consumption become regular themes of FM research efforts, the appeal will certainly rise. One of the limitations of this research is that the investigated samples used, though rigorously and carefully selected, could not have been exhaustive of the available literature on FM. Notwithstanding, the criteria used for sample selection led to the identification of the final sample in ways other keywords and other researchers may only try.

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