



TOWARDS A CLASSIFICATION OF FAMILY-OWNED CONSTRUCTION FIRMS IN GHANA

Che Andrews Anzagira¹,

De-Graft Owusu-Manu²,

Edward Badu³ⁱ

¹PhD Student,

Department of Construction Technology and Management,

Kwame Nkrumah University of Science and Technology,

Kumasi, Ghana

²Associate Professor,

Department of Construction Technology and Management,

Kwame Nkrumah University of Science and Technology,

Kumasi, Ghana

³Professor,

Department of Construction Technology and Management,

Kwame Nkrumah University of Science and Technology,

Kumasi, Ghana

Abstract:

The Ghanaian construction industry predominated by family-owned construction firms has established its dominant impact on economic development, albeit unstructured. This literature review is to dissect extant literature bringing out the uniqueness of the sector and attempt a classification for family-owned construction firms in Ghana. Anchored in a value-free axiological tradition in which the classification criteria of family-owned construction firms can be obtained by objective means set out in the framework, this study was undertaken by an extensive literature review from journals databases, textbooks, and relevant reports and citations. The review began with searches using “AND” and “OR” operators to search abstracts, titles, and a keyword with no restriction placed on the article's date of publication. Content analysis was done of the articles and with lots of information on family-owned businesses, very few on family-owned construction firms. Existing frameworks on the classification of family-owned businesses formed the basis of this framework. The key findings indicate that small and medium-sized family firms predominate the construction industry. The physiognomies of family-owned construction firms also contribute to their proliferation and overarching importance within the sector. The novelty of this study is that it merges information from the general business and construction industry and carves criteria for which family-owned construction firms can be identified and classified. For academia, the paper

ⁱ Correspondence: email cheandrew@yahoo.com, d.owusumanu@gmail.com, edwardbadu@yahoo.com

contributes to the stream of knowledge on what constitutes family-owned construction firms whilst exposing the lack of research in this constituency. It also serves as the foundation upon which future research can be conducted in the field of family-owned construction firms. For practitioners and policymakers, the paper offers insights into how to identify family-owned construction firms to be able to distinguish them for targeted support to grow the economy. Future research should be targeted at examining the growth and sustainability of family-owned construction firms.

Keywords: construction industry, family firms, family-owned construction firms

1. Introduction

The construction industry constitutes the central region of development for all economies globally. Several researchers attest to the impact of the construction industry on the growth and development of economies worldwide (Boadu et al., 2020; Mokhtariani et al., 2017; Osei, 2013; Ofori, 2012; Mahamid, 2012). Developing nations including Ghana particularly require a vibrant and structured construction industry to accelerate its economic development by providing substantial infrastructure, providing employment, alleviating poverty, and raising the standard of living of its people. Governments (the largest client of the industry) in most countries globally uses the construction industry to regulate their economies (Nyoni and Bonga, 2017; Khan et al., 2014; Osei, 2013; Ofori, 2012; Chileshe and Yirenkyi-Fianko, 2012). The uniqueness of the industry in terms of its fragmented nature (Alarcón and Mesa, 2012; Tserng et al., 2011), the wide range of stakeholders involved (Boadu et al., 2020; Enshassi et al., 2009), the peculiar characteristics of its outputs (Mokhtariani et al., 2017; Ofori, 2012; Polat, 2010), labor-intensive nature of the industry (Boadu et al., 2020; Arthur-Aidoo et al., 2016; Fugar et al., 2013) makes it imperative for a legislative framework to drive its operations.

The Ghanaian construction industry despite its overarching and pivotal role coupled with the uniqueness of the sector, the industry has to date no regulatory body overseeing its operations generally. It is worth reiterating however that there have been some strides by the government to achieving formalization of the activities of the sector. These activities have culminated finally in the promulgation of a Construction Industry Development Authority (CIDA) bill which is yet to be legislated into law including the launching of the Ghana Building Code in 2019 and the formation of the Ghana Chamber of Construction Industry (GCCCI) as a follow up to the age-old National Building regulations, 1996 (L.I. 1630). The lack of zeal by the Ghana government to establish this body is said to account for the unstructured outlook of the Ghanaian construction industry. There is also no accurate account of the number of firms that operate within the industry which is attributed to the easy entry and exit of the industry (Boadu et al., 2020; Owoo and Lambon-Quayefio, 2018; Arthur-Aidoo et al., 2016; Ofori-Kuragu et al., 2014) and partly due to the lack of a regulator. The consequence of this characteristic of the industry is the existence of a multiplicity of firms of all types, sizes, financial and technical capabilities, and dealing in various aspects of the construction activities. The firms

operating within the construction space categorized into micro, small, medium, and large firms with extensions into multi-nationals firms. Due to the lack of restrictions on entry and exit to the sector, the sector is predominated by small and medium family-owned construction firms.

Whilst the term “family” is “*central and most enduring to all human social groupings*” (Smith et al., 2009), it remains the most fragmented in the research literature on seeking to discover a widely accepted explanation to family (Schell et al., 2018), family-owned business (Payne, 2018; Perret, 2016; Debarliev and Janeska-Iliev, 2015; Mandl, 2008; Allouche et al., 2008) and by extension to the family-owned construction firm. This is particularly critical for family-owned construction firms as it is the constituency of this study and to that extent an attempt to classify it.

Recourse to these spectra of concerns, the study objectives have been tailored to: synthesize knowledge covering the contribution of the construction sector; the distinctive features of the sector whilst delving into family-owned construction firms, and present a framework towards a classification of family-owned construction firms in Ghana. The constituency of the study covers the methodology adopted, the contribution of the construction sector, conceptions of unique characteristics of the sector, and the classification of construction firms within the industry. This is then followed succinctly with some conclusions and recommendations.

2. Methodology

The methodological stands of the study revolve around the axiological philosophy, depending wholly on the generalization and synthesis of extant research as the basis of the study. To fully review and analyze the findings of previous research studies relating to the classification of family-owned construction firms, a methodological analysis of publications in academic journals is necessary (Osei-Kyei and Chan, 2015; Tsai and Wen, 2005). It undertakes an in-depth examination of the importance and uniqueness of the industry notwithstanding its unstructured form and classification. For relevant literature to be unearthed about the classification of family-owned construction firms several decisions have to be made regarding sources of information and the search terms to be used when accessing databases (Ip and Jacobs, 2006). Numerous sources were consulted to achieve the ambitions of the study including academic journals databases (Emerald, ScienceDirect, Wiley InterScience, JSTOR, and EBSCO), thesis, government reports, and dissertations (Ip and Jacobs, 2006). Search criteria for databases included family-owned construction firms including literature related such as family firms, family-owned firms, and family business. Before extending the search to other related terms, the search commenced with core articles on family-owned construction firms. The criteria for the search was a combination of the two operators “AND” and “OR” for the key terms requiring scrutiny. These included “family-owned” OR “family firm” OR family business” OR “family-owned business” AND “construction”. The topic being a very gray area for studies because of the lack of research information, no restriction was placed on publication date to search categories including abstract, titles, and keywords. A review

of existing frameworks on the classification of family-owned businesses and construction firms in Ghana formed the basis of this study. The study was also underpinned by a critique of the extant literature on the importance and classification of family-owned businesses and construction firms in Ghana. This paper will therefore report on findings from the past literature reviewed.

3. Overview of the construction sector

3.1 Contribution of the construction industry to socio-economic development

Globally, the construction industry plays a significant role in the growth and development of all countries' economies (Boadu et al., 2020; Mokhtariani et al., 2017; Osei, 2013; Ofori, 2012; Mahamid, 2012), as indicated in figure 1 below. Olebogeng (2015) equates the economic progress of a nation to a process of development and change targeted at nurturing people's living standards. Researchers indicate that the Ghanaian construction sector contributes immensely to Gross Domestic Product (GDP) and employment within the economy (Eyiah et al., 2019; Owoo and Lambon-Quayefio, 2018; Asamoah and Decardi-Nelson, 2014). For instance, data from the International Trade Administration indicate that the construction sector in Ghana contributed 18.8% of the nation's annual GDP in 2018, (International Trade Administration, 2020). The sector was the second-largest contributor to GDP (Boadu et al., 2020) after agriculture (crops) in 2017 contributing 13.7% to the GDP (The Conversation, 2019; Ghana Statistical Service, 2018).

Construction is labor-intensive (Darko and Lowe, 2016) and the industry is a major employer in countries globally. In the UK for instance, it is posited that the industry is the number one employment avenue (Worrall, 2012). Khan et al. (2014) in their study of the Malaysian construction industry concluded that the construction sector significantly oversees the provision of job opportunities, increases income sources, reduces unemployment, and minimizes poverty from the society. Several researchers have posited that the Ghanaian construction industry's relatively labor-intensive nature reflects its importance as a major employer (Boadu et al., 2020; Darko and Lowe, 2016; Fugar et al., 2013). The Ghana Statistical Service (GSS) in their 2018 Survey indicated that the construction sector employs at least 3% of the labor force (GSS, 2019). The immobile nature of the construction outputs requiring constructed items to be location-specific alleviates poverty and raises living standards by employing lots of people, generating incomes even in local communities and this develops the infrastructure of the communities involved (Arthur-Aidoo et al., 2016; Ofori, 2012).

Lewis (2005) suggests that the principal business of the construction industry is converting financial assets into physical assets, while directly and indirectly generating income and employment. This facilitates productive activity by enabling goods and services to be distributed across the country and beyond (Ofori, 2012). Arti et al. (2013) remark that this function of the construction industry is imperative as it addresses the infrastructural deficit of most nations, satisfies the requirements of the other sectors through infrastructural development and satisfies the ever-increasing population of a nation either through construction, renovation, or maintenance of structures. Ofori,

(2012) posits that the industry through this function also influences the capacity of the nation to attract foreign investment. For instance, between January 2008 and December 2010, the extent of foreign direct investments was about 75 projects worth \$2.3 billion (Boakye-Gyasi and Li, 2015).

Several researchers and scholars suggest that government is the biggest client in most countries and undertakes the greatest investment in construction (including the construction of houses, schools, hospitals, airports and ports, roads, bridges and irrigation systems; and water and power infrastructure) (Nyoni and Bonga, 2017; Khan et al., 2014; Osei, 2013; Ofori, 2012; Chileshe and Yirenkyi-Fianko, 2012). Governments in most countries have thus developed the habit of using the industry to regulate their economies (Amoah, 2018) by altering the degrees of their expenditure in construction. This is especially dire in developing countries where governments through behavior, policies, and legislation have control of both public and private sector construction (Ahmed et al., 2014). Owoo and Lambon-Quayefio (2018) posit the importance of the Ghana government's policy to ensure that the construction sector receives significant investment to engineer an appropriate answer to the oil-fueled surge in request for construction and infrastructural developments and to influence the other sectors of the economy. Tuuli et al. (2007) and Eyiah and Cook (2003) attribute this to the sole responsibility of the government in exercising control over all construction activities within the country.

Several scholars agree that the construction industry in addition to the generation of substantial employment stimulates the other sectors of the economy and has utmost multiplier effects created through the many complex and mutually dependent relationships the industry has with the other sectors of the economy (Owoo and Lambon-Quayefio, 2018; Nyoni and Bonga 2017; Darko and Lowe, 2016; Khan et al., 2014; Holt, 2013; Osei, 2013; Ofori, 2012). The interdependence and linkages of the sector to the other sectors of the economy authenticates the French maxim "*when the construction industry prospers everything prospers*" (Nyoni and Bonga, 2017). The industry provides the catalyst that influences growth in total and per capita income resulting in primary changes in the structure of an economy through the linkages (Arthur-Aidoo et al., 2016). Osei (2013) posits that the construction sector's contribution to total industrial development has seen significant growth over the years. Consequently, the Ghanaian construction sector's contribution to the overall industrial development has grown consistently from 29.8% in 1993 to 37.4% in 2011 (Osei, 2013) and a further 40.5% in 2014 (GSS, 2015). Having recorded the overwhelming significance sector's support to the social and economic development of Ghana, the study now throws light into the structure of the Ghanaian construction industry which cannot be said to be structured properly so-called to match its importance.

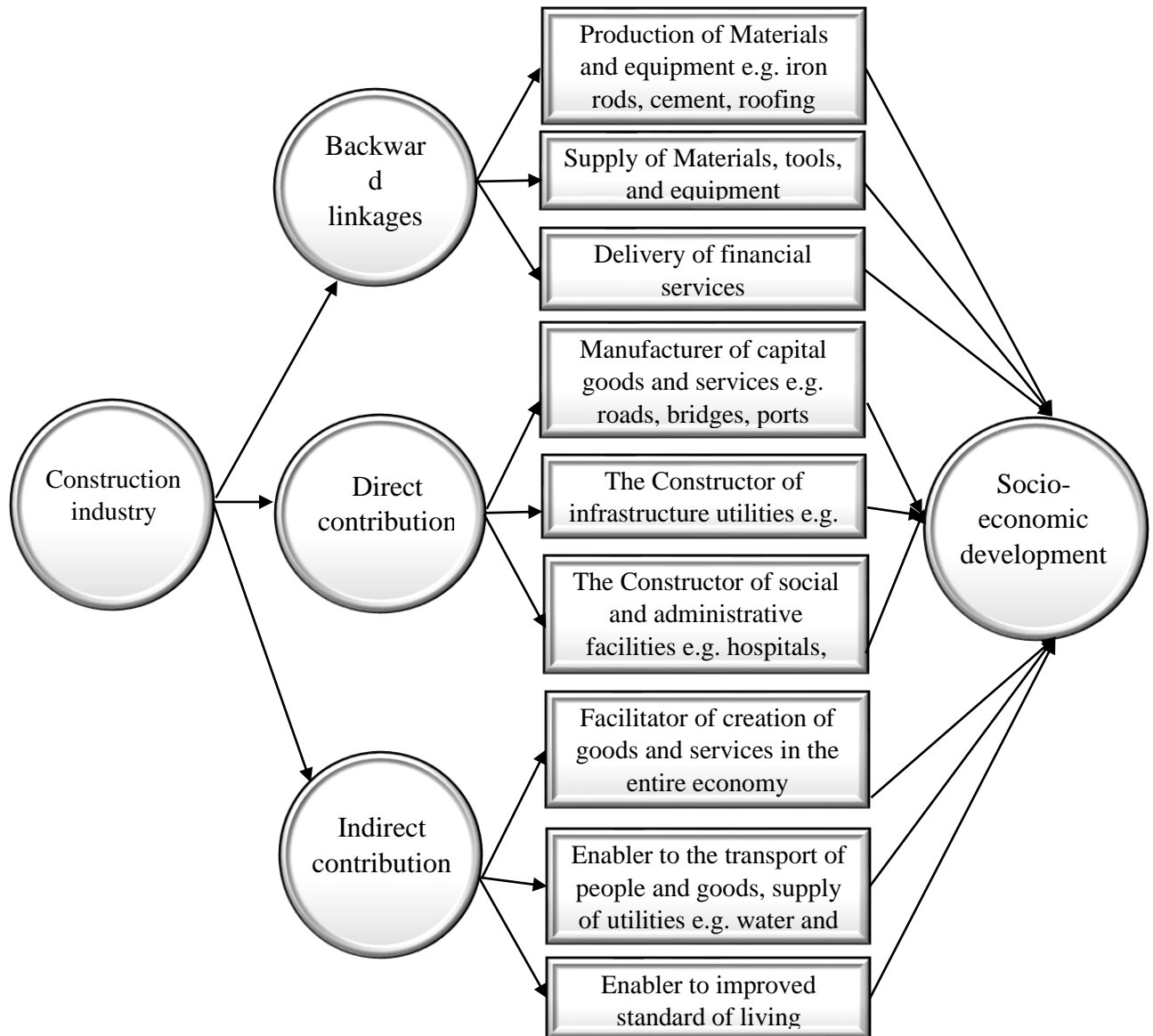


Figure 1: Contribution of the construction industry to socio-economic development
Source: Author’s Construct adapted from Ofori (2012)

3.2 Structure of the Ghanaian construction industry

The discovery of oil in commercial quantities in 2007 marked a significant turnaround for the Ghanaian construction sector (Laryea, 2010). The effect is evidenced in the drive of large-scale projects into the Ghanaian construction sector, including the construction of accommodation for foreign expatriate workers, real estate, and other infrastructure projects across the country. Other significant milestone events have also influenced the construction sector including the celebration of Ghana@50 which was associated with the construction of several monumental structures including markets, schools, and parade grounds among others to commemorate the occasion of Ghana’s 50th anniversary of independence. The hosting of the African cup of nations also brought in its wake the construction of several stadia and associated works which stimulated construction activities to an extremely high level. The educational sector reforms including the construction of E-Blocks and emergency school projects, GETFund monumental projects

across the country, affordable housing projects, expansion of the ports in Tema and Takoradi, construction of the Terminal 3 at Kotoka international airport and the construction and expansion of other airports across the country, among others. The sector has thus performed creditably over the years with a growth rate of 18.3 year-on-year for the third quarter of 2018 (GSS, 2019).

Despite this extent of construction activities, there is to date no oversight body overseeing the activities of the construction sector (Boadu et al., 2020; Owoo and Lambon-Quayefio, 2018; Fugar et al., 2013; Osei, 2013; Ofori, 2012). It can however be mentioned that there have been strides at achieving this which have culminated to date in the promulgation of the Construction Industry Development Authority (CIDA) Bill in 2020. The process of establishing this independent regulatory body (CIDA) for the Construction industry started in 2014 and it's intended to act as an overarching regulator to streamline the activities of the construction industry (Oxford Business Group, 2019). The establishment of the independent oversight body is observed by stakeholders as one that would make adherence to standards effective.

However, in the absence of this authority, the various subsectors within the industry have established individual governing institutions. The Ghanaian government has established two main ministries (Ministry of Works and Housing (MWH) and Ministry of Roads and Highways (MRH)) to be responsible for all building and its associated minor civil works and other civil works in the country. The MWH oversees all building and associated minor civil works while the MRH supervises the actions of actors in the construction, rehabilitation, and maintenance of roads, highways, railways, airports, and ancillary works. Due to the intricacies of work involved in the road and transport subsector, the Ghanaian government has established agencies to oversee the implementation projects within the subsector. These include the Ghana Highway Authority (GHA) in charge of trunk roads, the Department of Feeder Roads (DFR) for feeder roads, while the Department of Urban Roads (DUR) deals with roads within the urban areas in Ghana. The MWH and the MRH are responsible for the registration and classification of contractors in building construction and civil works respectively within the industry. Regrettably, there is no formal documentation of contractors in Ghana relative to information on their number, respective sizes, and capabilities. Whilst the Chartered Institute of Building in Ghana estimates that there are over 1,600 building contractors working in Ghana since October 2012 (Oxford Business Group, 2014), the Ministry of Education in 2010 put the number of registered contractors at about 23,000 and Ofori-Kuragu et al. (2014) revealed that figures from the then Ministry of Water Resources Works and Housing (MWRWH) put the registered contractors at about 34,000 in 2010. The International Trade Administration in 2020, also predicted that there are about 2,500 active building and civil engineering construction firms operating in the Ghanaian market (International Trade Administration, 2020). It would be misrepresentative to try to state the exact number of contractors in the country and each category because these ministries do not have an up-to-date list of contractors operating within their sectors. This difficulty stems from the easy entry and exit to the industry (Boadu et al., 2020; Owoo and Lambon-Quayefio, 2018; Arthur-Aidoo et al., 2016; Ofori-

Kuragu et al., 2014). The limited obstacles to entry and exit have also made the industry to be flooded by a multiplicity of small and medium-sized firms (Boadu et al., 2020; Arthur-Aidoo et al., 2016) since the requirements to set up and run these types of firms are less demanding. The perception by outsiders of the sector being lucrative urges and encourages them into pursuing enterprises in the sector, whilst the inherent problems drive those already inside to exit without notification. There have been some contractor associations set up by the contractors to unite themselves and to fight and protect their common interests. These include the Civil Engineering and Building Contractors Association of Ghana (CEBCAG) and the Association of Road Contractors (ASROC).

The Supervision of construction works by contractors is mostly handled by consultants. Construction consultancy services in Ghana are managed by public sector departments and agencies including the Building and Road Research Institute (BRRI), Architectural and Engineering Services Limited (AESL), Department of Feeder Roads, Department of Urban Roads, Ghana Highway Authority among others, and other private sector consultancy firms with professional institutional memberships. This interplay of consultants, contractors, and other stakeholders in construction among others makes the industry unique from other industries (See figure 2 below).

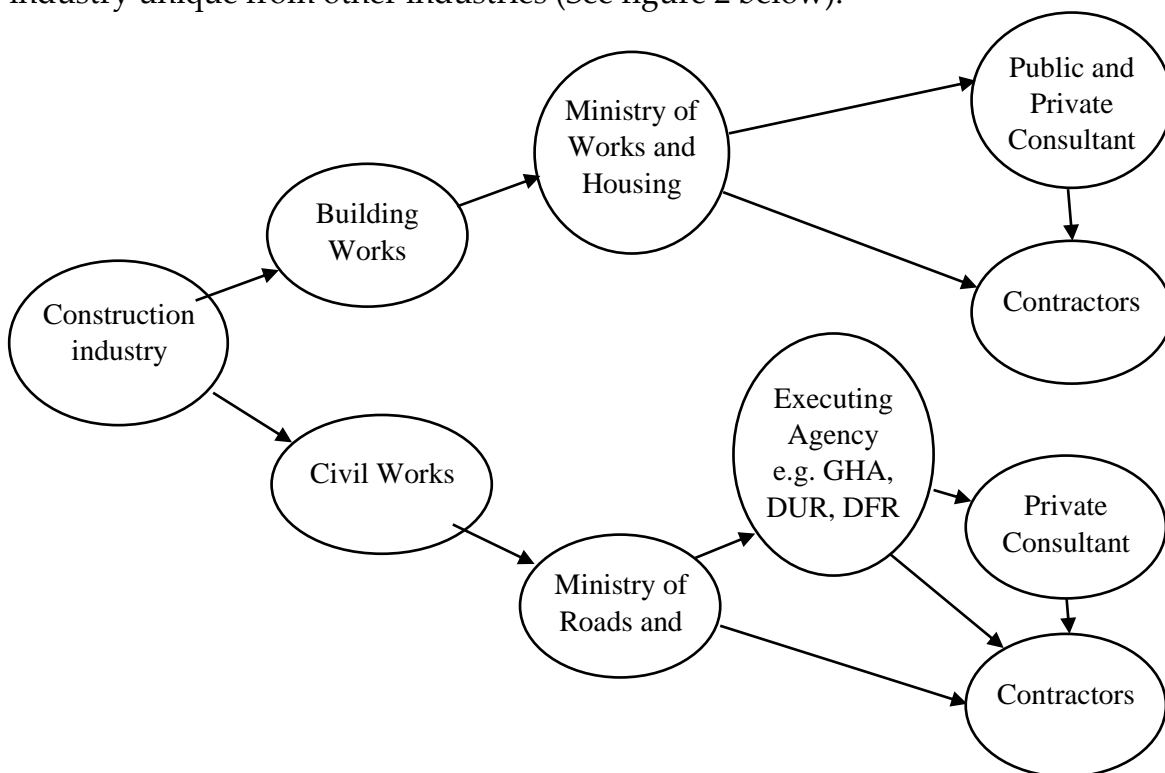


Figure 2: Conceptual framework on the structure of the Ghanaian Construction Industry (Source: Author’s Construction)

3.3 The uniqueness of the construction industry

Many features distinguish the construction industry and set it apart from the other industries such as the manufacturing industry among others. The physiognomies of the construction industry that drives its difference include sorts of output, clients, size of

outputs, nature of demand for construction output, nature of construction work, variety of construction technology, and structure of the industry.

The outputs of the industry (buildings, roads, etc.) are durable and typically large and heavy units, individually unique, immobile, expensive, and involving complex processes (Mokhtariani et al., 2017). Studies suggest that most construction projects have a long period of conception due to their large, bulky and complex nature (Ofori, 2012) and do not exist before their purchase (Polat, 2010). Consequently, they are slow to respond to planned and unplanned changes compared to the other industries which have products completed and released into the market within very short periods. Concomitant to the fact that construction projects are usually customized productions on-site by temporary multi-organizations, Mokhtariani et al. (2017) conveniently refer to them as one-off products. Construction projects are thus demand-driven or client-driven for these associated reasons.

Client-driven processes predominate construction activities because new projects are initiated only when the client requests them as contractors are unable to influence demand for construction (Mokhtariani et al., 2017). Demand is a consequence of the objectives, policies, and resources of the government, and the needs, aspirations, and resources of individuals, private organizations, and religious bodies. Because of the immobile nature of the projects, they are often constructed in different and specific locations using different resources, inputs, and different stages of their process controlled by clients and not the contractors (Mokhtariani et al., 2017). There are also discontinuities and uncertainties in demand patterns usually as a result of the amount of investment required. Researchers have concluded that the construction industry has become more sophisticated and dynamic despite its inability to exceed the demands, needs, and expectations of clients (Asamoah and Decardi-Nelson, 2014).

Predominantly, the government is the largest client of the built environment in most countries (Darko and Lowe, 2016; Osei, 2013; Wibowo, 2009). Mokhtariani et al. (2017) observed that in developing economies, the public sector undertakes most of the construction projects and this makes the construction industry dynamic and highly turbulent as it is impacted severely by political changes and decisions. The Ghanaian government being the biggest client of the construction industry makes the industry directly linked to the economy (Arthur-Aidoo et al., 2016; Chileshe and Yirenkyi-Fianko, 2012; Eyiah and Cook, 2003). Researchers indicate that these projects are mostly executed by the government with state funds (KPMG International, 2013; Ofori, 2012) under competitive bidding systems. Besides, private organizations including religious bodies and individuals also require the construction of various facilities for various purposes.

Competitive bidding systems are employed in the procurement of construction projects particularly in public sector projects (Mokhtariani et al., 2017; Polat, 2010). The competitive bidding system based commonly on the lowest evaluated bid price results in great negotiating power to the clients (Mokhtariani et al., 2017). Several setbacks are however linked to this traditional procurement system which is most popular in many countries including its time-consuming nature, discouraging innovation, decreased buildability, and fragmentation of the project teams (Boadu et al., 2020). This

procurement system has been associated with underpricing tendencies by many construction firms in their efforts to win contracts and inability to execute upon award of the contract (Boadu et al., 2020). This procurement route also partly defines the nature of the industry which colors it differently.

A plethora of studies conducted affirms the construction industry as fragmented, sensitive to economic change, and highly competitive (Tserng et al., 2011). Alarcón and Mesa in their 2012 study conclude that construction is a fragmented, complex, high risk, and multi-party business. This coupled with the project-based nature of the industry makes it difficult to use past experiences in new projects (Kärnä, 2014). Tserng et al., (2011) explain that construction involves longer project durations, and as result firms are prone to governmental, legislative, inflationary, and business cycle impacts. Vrijhoef and Koskela (2005) characterize the construction industry in addition to fragmentation to be composed of on-site production, extremely low volume of repetitive projects, and one-off capital-intensive products as distinguishing features from other project-based industries. Studies also confirm the construction sector to be characterized by well-informed clients, a high level of competition, complex operations, and high-risk conditions (Mokhtariani et al., 2017; Tarawneh, 2014).

Consequent to the fragmented nature, the industry is also capital-intensive, location and weather-dependent, and involves a complex procurement process (Arditi et al., 2008). Dabrian et al. (2016) suggest that the diversity of the construction industry coupled with the complex nature of the output of construction projects makes them both capital- and labor-intensive. However, construction in developing countries is more labor-intensive compared to the developed economies (Arthur-Aidoo et al., 2016; Fugar et al., 2013) usually involving lots of skilled and unskilled workers. The Ghanaian economy embraces labor-based methods as a more economic option because of the availability of cheap labor in the labor market (Boadu et al., 2020; Arthur-Aidoo et al., 2016). The labor-intensive nature of the construction industry is also attributed to the fragmented and complex nature of the industry which emphasizes a wide range of stakeholders to be engaged comprising engineers, architects, quantity surveyors, contractors, and artisans (Boadu et al., 2020; Owoo and Lambon-Quayefio, 2018; Osei, 2013; Dadzie et al., 2012).

The labor-intensive attitude of the industry as aforementioned makes significant the requirement for a wide range and number of stakeholders. The construction contracting process in Ghana requires a wide range of stakeholders because it's unique, complex, and risky (Boadu et al., 2020; Dadzie et al., 2012; Enshassi et al., 2009). Besides the contracting process, Mokhtariani et al. (2017) suggest that each construction project is characterized by several temporary teams with members from different disciplines most of which are temporal, multiple firms with different cultures and values which makes delivering value to customers and satisfying them extremely difficult, in addition to financing the associated construction.

Financing government-sponsored construction projects to play a dominant role in the delivery of infrastructure development (Ofori et al., 2017) in Ghana. Concomitant to this is the fact that the methods used in sponsoring construction are delicate and risky

and this makes it different from much more certain and stable financing methods obtainable in manufacturing (Ssegawa, 2001). The cost of an item is known before the purchase in the manufacturing sector but due to the unique, complex, and risky nature of construction, the work to be constructed has to be designed and specified, estimated by the quantity surveyor or the contractor that will execute the work before construction starts.

The construction industry because of its nature usually engages many stakeholders including clients, the design team, the construction team, and suppliers among others (Boadu et al., 2020; Enshassi et al., 2009). The split in responsibilities of the project stakeholders results in a manifold of problems including insufficient interaction between consultants/ designers and contractors during the design and construction stages (Boadu et al., 2020) and also adversarial relationships that characterize the industry (Ahadzie, 2007). The split between responsibilities for planning/ design and construction has been identified by researchers as a significant difference between the construction industry and other industries (Egbeonu, 2007; Ahadzie, 2007). For instance, whilst in manufacturing, the manufacturer has direct contact with the consumer and for which he can fail or succeed based on his assessment of the consumers' needs and the price they are prepared to pay, in construction the client hires an engineer/ architect to design a project which is handed over to the contractor to construct; then the consultants control the contractor through supervision. Again, whilst in the manufacturing industry profit is contingent on quality and quantity of products sold, the construction industry is characterized by a competitive procurement system that makes the contractor sometimes undercut when pricing to have the edge over competitors and its attendant problems to having to complete the works within the shortest possible time using the least of resources possible.

Reference the fact that construction projects are often made of temporary project teams (Mokhtariani et al., 2017) as mentioned above, researchers have documented that the construction industry is also characterized by a heavy reliance on temporary labor for the execution of its activities. Many construction firms around the world including Ghana maintain a small proportion of the permanent workforce whilst the bulk of its workers are engaged on a temporary and casual basis (Boadu et al., 2020; Alkilani et al., 2013). The number of people employed and maintained as a permanent workforce depends on the size of the construction firm. It is thus important to contextualize the sizes of firms in the construction industry.

3.4 Theory of the firm size: contextualizing firm size in the construction industry

Globally, the construction industry is characterized by a variety of firms of different sizes, capacities, and specialties. Synonymous to project classification schemes which allow for scholars and experts to analyze construction projects by grouping them according to similar characteristics (Ouah et al., 2015), construction firms are classified according to similar attributes including financial class, firm size, and also sub-sector of the construction sector that they wish to venture into. In most countries, the sector is categorized by micro, small, medium, and large firms with a few identified multinational

firms. In the UAE for example, firms are classified into micro, small, medium, large-sized depending on the number of employees working for them with firms employing less than five persons being micro, 5 to 19 persons being small, 20 to 49 referred to as medium and large firms employing over 50 persons (Oudah et al., 2018).

In Ghana, the sector constitutes a cluster of firms that operate under the categories of micro, small, small to medium size, and large (Arthur-Aidoo et al., 2016). Several multinational firms also operate within the sub-sector usually as large firms. Accordingly, construction firms are predominated by small and medium-sized family firms and since there is no single classification of all construction firms in Ghana, some notable definitions of sizes of firms have been considered. Whilst some researchers delved into the number of employees the firm had, others looked at the fixed assets owned by the firms and yet other scholars had a combination of the number of employees and the fixed assets of the firm. For instance, Ghana Statistical Service (GSS) explained that firms with less than 10 employees are considered small and those with more than 10 employees are medium or large. Ayeetey et al. (1994) defined micro-businesses as businesses employing 1-9 persons; small as those employing 10-29 persons; and medium as those which employ 30-40 persons. The Bank of Ghana under the Funds for Small and Medium Enterprises Development (FUSMED) classified firms based on the value of fixed assets by defining micro and small enterprises as businesses with assets of 5 million cedis and 25 million cedis in constant 1988 prices (US \$20,000 and the US \$100,000 equivalent) respectively (Boch Ocansey, 1996). The National Board for Small-Scale Industries (NBSSI) an agency mandated to oversee the growth of small-scale industries defined micro-enterprises as enterprises employing 1-5 workers with fixed assets (excluding realty) of value not exceeding \$10,000 and Small-Scale Enterprises as those that employ between 6-29 persons or have fixed assets (excluding realty) of value \$100,000 (National Board for Small Scale Industries (NBSSI)(1996)). Mensah (2004) also referred to micro-businesses as businesses employing up to 5 persons with fixed assets (excluding realty) not exceeding \$10,000 in value; Small businesses as those which employ 6-29 with fixed assets (excluding realty) up to \$100,000 in value; and Medium businesses as those, which employ 30-99 persons with, fixed assets of up to \$1 million in value. However, other researchers and scholars in the construction industry explained construction SMEs as contractors registered in financial classes 2, 3, and 4 (Eyiah and Cook, 2003; Eyiah, 2004) the financial values of which are seen in table 2 below.

In Ghana, firms desirous of starting and operating businesses must obtain licenses, registration, and permits to acquire legal legitimacy (Eyiah, 2004). There are two categories of business licenses as general business registration (government permission needed for all business activities before engagement in the market), and specific business registration (registration of business in fields where the government claims a specific public interest requiring safeguards concerns arising from a specific sector, process or product-related activities)(ADB, 2001). In other words, Contractors like other businesses must first register their firm with the registrar general (Companies Act, 2019 (Act 992)). Thereafter, firms that wish to undertake public projects are required to register with the appropriate construction ministry depending on whether building or civil engineering

work, plumbing or electrical work and then to the particular class within that ministry depending on the financial resources, human resource capacities, and the level of technology of the firms. The MWRWH and MRH classify contractors into eight (8) categories for construction, rehabilitation, and maintenance work as A, B, C, D, E, G, K, and S (Eyiah and Cook, 2003) as presented in Table 1.

Table 1: Classification of Ghanaian construction firms

Category	Description
A	Roads, Airport, and Related Structure
B	Bridges, Culverts, and Other Structure
C	Labour Based Road works
D	General Building works
E	Electrical works
G	General Plumbing works
K	General Civil works
S	Steel Bridges and Structures

Source: Author’s Construction built on information provided by the MWRWH & MRH (Ghana), 2018

Contractors in each category are further grouped based on the value of the project to be executed into financial classes 1, 2, 3, and 4 based on their technical and managerial expertise, financial standing, previous performance, and equipment holding. Table 3 describes the classification of contractors (building and road construction) based on the value of the project.

Table 2: Classification of construction firms based on the value of the project

	Building Construction	Road Construction
Class	Project Value	Project Value
Class 1	> \$500,000	No limit on tender
Class 2	≤ \$500,000	≤\$2.5M
Class 3	≤ \$200,000	≤\$1.3M
Class 4	≤ \$75,000	≤\$0.5M

Source: Author’s construction built on information provided by the MWRWH, 2018.

The supervising ministries provide guidelines indicating the minimum requirement for entry into each class and category. Thus, the categories are identified as A1B1, A2B2, A3B3, A4B4 and D1K1, D2K2, D3K3, D4K4 (MRH and MWRWH, 2018); and each category depicts the type and value of work it can undertake. A1B1 and D1K1, A2B2 and D2K2 are classified as large firms, A3B3 and D3K3 as medium and A4B4 and D4K4 as small firms. The majority of the construction companies in Ghana fall under the A3B3, A4B4, D3K3, and D4K4 classifications (Oxford Business Group, 2014), and these are mostly family-owned businesses. Thus, the next section attempts to explore family businesses and what constitutes family-owned construction firms.

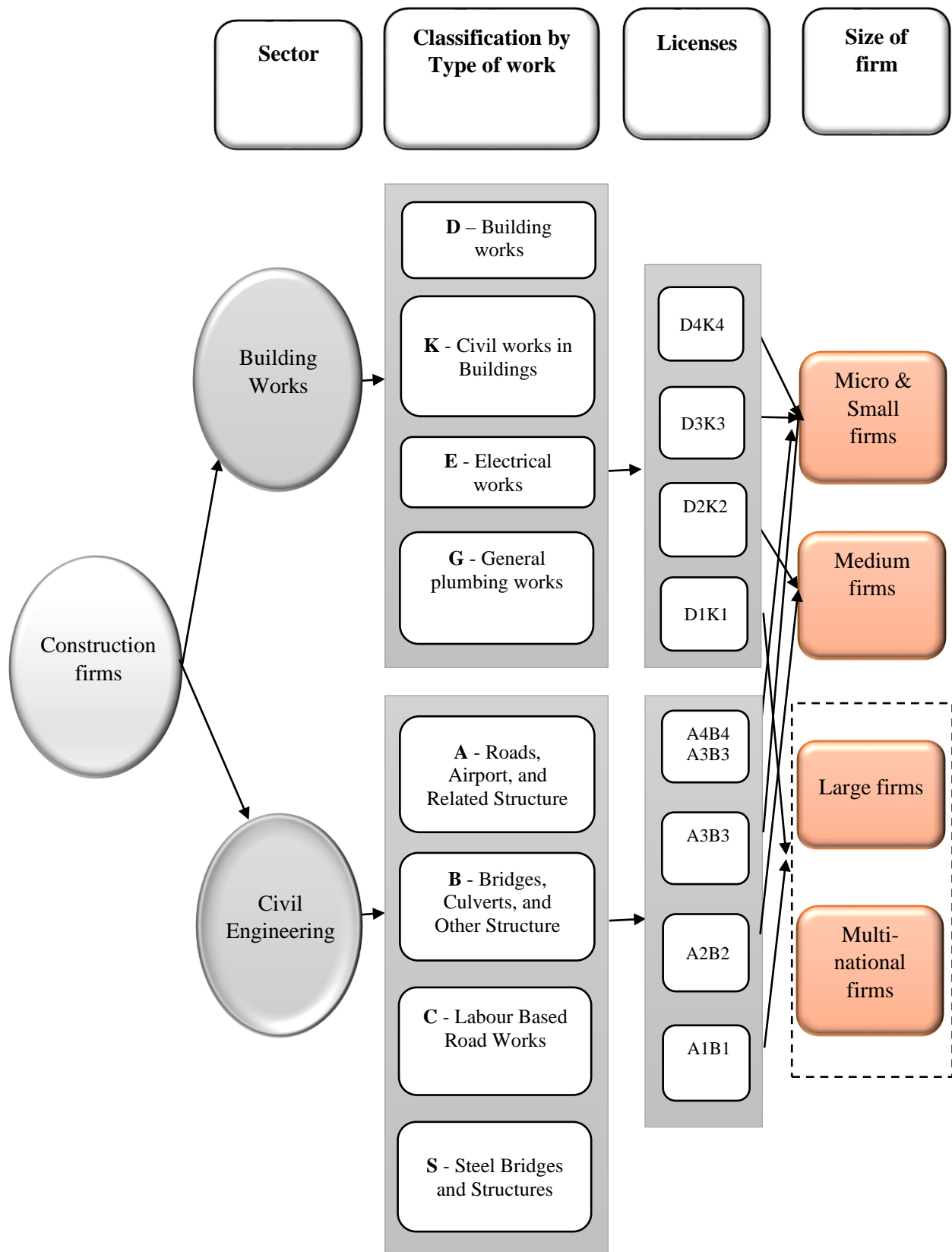


Figure 3: Classification of construction firms (Source: Author’s Construct)

3.5 Towards an understanding of family businesses

Though the family “*is the most important and enduring of all human social groupings*” (Smith et al., 2009) and plays a crucial role in the family business, there is still to date no

consensus on a single definition of “family” in family business research (Schell et al., 2018). Belenzon et al. (2016) and Agbim (2018b) conjectures the term “family” to include a group of people related to each other by blood or marriage whilst Agbim (2018a) posits a family to come under three extensions including being a nuclear family when it is comprised of a husband, wife, and children or a polygamous family when considering husband, wives and children. It is extended family when it involves husband, wife or wives and children, as well as all those who are related to them by blood and marriage including grandparents, uncles, aunties, nephews, nieces, stepbrothers, and sisters. The broad diversity and complication in getting a definition for the term “family” find space in the difficulty of obtaining a single universally accepted definition for a family business or family-owned business.

Whilst there is a wealth of definitions availed by researchers related to a family-owned business, there is no consensus to a universally accepted definition of a family-owned business (Payne, 2018; Perret, 2016; Debarliev and Janeska-Iliev, 2015; Mandl, 2008; Allouche et al., 2008). Scholars have documented their versions of the family business depending on the facet of the family that suits their particular situation. For instance, Sharma et al. (1996), in a survey of more than 250 papers in an in-depth analysis of the family business, discovered twenty-one diverse definitions in terms of the family business. Mandl (2008) in a survey across Europe revealed 90 different definitions of a family business with ownership and management/ strategic control as a common factor. Other features common features of a family business included the active participation of family members in the everyday operation of the firm, the firm’s contribution to the family’s income generation, and inter-generational considerations (Mandl, 2008). Zahra et al. (2012) suggest that firms with a significant share of the ownership held by at least one family and having intentions of several generations in leadership positions within that firm qualify as family firms. Some researchers prefer to define the family-owned business by aligning and breaking it down into dimensions or components. For instance, Suh et al. (2008) and Villalonga and Amit (2006) whilst admitting generally accepted definition difficulties explains a family-owned business using characteristics including the following; voting control, percentage of ownership, power over strategic direction, participation of several generations, and active management by family members. Cabrera-Suarez (2005) opts to explain a family-owned business as a business in which the family influences both the ownership and management processes. Handler (1994) also views family business from the historical lens via three extents; ownership, involvement of family members, and the transition between generations, as well as the combination of these parameters. Poza (2013) however, extends the three-dimensional definition of the family business to a fourth dimension by articulating that family business involves ownership control by two or more family members; managerial influence involving active participation, advisory role, board membership, or active shareholding; concerns for family relationships; and finally, the possibility of continuity across generations. Allouche et al. (2008), conceives a family business as one in which one or several families largely dictates its development through ownership of its capital, restricting the procedure for the appointment of the directors of the firm to family ties, whether they are

family members or non-family workers, and with intentions to transfer the business to the next generation because of the importance of the business to the interests and objectives of the family. Researchers have attributed the lack of a generally accepted definition of a family business to family businesses being contingent on the institutional legal context which varies between countries (Allouche et al., 2008) and because it cannot account for the essential differences in various legal and institutional frameworks (Dyer, 2006; Carney, 2005). Thus, these types of businesses operate in all facets of the economy and are referred to as family-owned construction firms in the construction sector.

3.6 Family-owned construction firms

Globally, whilst all governments see the construction sector as indispensable for its significance it has been documented that family-owned construction firms dominate the construction industry worldwide. The industry is about 90% dominated by small and medium-scale construction firms (Thwala et al., 2018; Moo, 2015; Aniekwu, 2013; Amoah et al., 2011; Laryea, 2010; Thwala and Phaladi, 2009), most of which are family-owned construction firms. In Ghana, a significant percentage of the small and medium-sized firms are domestic contractors and operated as family-owned firms. For example, Egmond and Erkelens revealed from their 2007 survey that from a total of 7095 construction firms registered in 2002, ninety percent were small family-owned construction firms. Reasons for the multiplicity of small and medium-sized firms mostly family-owned in the construction industry have already been highlighted (Boadu et al., 2020; Arthur-Aidoo et al., 2016; Ofori-Kuragu, 2013). These family-owned construction firms undertake various construction activities including modifying, erecting, repairing, demolishing, on-site assembling, and installation of prefabricated components, building and engineering services, civil engineering works, and other similar structures.

For a lack of widely consenting opinion on a family-owned construction firm, this study adapts and modifies Chrisman et al. (2005) definition of a family-owned business relative to the construction industry. The framework of Diéguez-Soto et al. (2014) which constitutes a combination of subjective and objective characteristic components of family businesses as defined by some authors for this study has been acknowledged. Chrisman et al. (2005) succinctly examine a family business from two perspectives of the components of a family-owned business (including ownership, governance, management, and trans-generational succession) and what is a family-owned business (including the resolution of the family to direct firm behavior, and distinct resources that arise from family participation). This is combined with the legal requirements of a construction firm for the study to conclude that a family-owned construction firm is *“one that has the legal form and composition or structure of a construction firm; ownership or control of the firm lies within the family; has the active involvement of one or more family members in the running of the firm, and there is the intention transfer the business to the next generation of family members”*. (See figure 4 below).

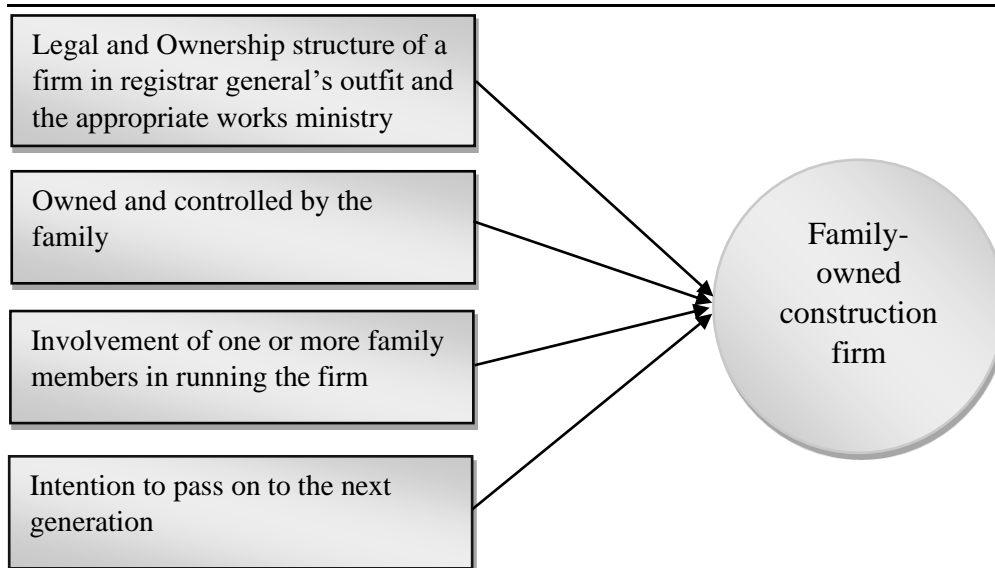


Figure 4: Composition of family-owned construction firm
(Source: Author's Construct)

The dissection of a family-owned construction firm into these four components makes it easy to distinguish and identify family-owned construction firms:

a. Legal and ownership structure of the firm

The legal regime in Ghana requires that before a business would commence operation in Ghana, it should be registered with the registrar general's department (Companies Act, 2019 (Act 992)). This provides the legal existence of the firm and provides the firm with the appropriate firm's name, the names of shareholders, and the composition of the shares or capital as well as the company secretary. A firm intending to undertake public construction works then proceeds to the appropriate ministry (whether building or civil engineering works) after acquiring the company registration documents to undergo the processes required for that ministry to be given the required license. The license categorizes firms into classes with each class of license indicating the size of the firm, the annual turnover, and the value of the project it can undertake. It can thus further divide the firm into small, medium, and large firms. It is significant to allude that this is unaccompanied by setbacks. For instance, it is challenging to determine the nuances in the size of the firm (the annual turnover, number of employees, and area of operation) (Bee-Lan and Benson, 2011; Skitmore and Wilcock, 1994). Bee-Lan and Benson (2011) suggest that the number of employees may not be a satisfactory measure due to the heavy subcontracting practice among contractors. It is also well acknowledged that many firms do not like making their annual turnover information public making it difficult to obtain accurate data on annual turnover.

b. Owned and controlled by the family

The company registration documents of a company usually contain the names and the shareholding or capital contributions from the respective shareholders. This indicates who owns and controls the company as the majority shareholder controls the strategic

direction of the company from their voting rights. This is also reflected in the board of directors' arrangement.

c. Involvement of one or more family members

The involvement of one or more members of the family in the running of the firm would further indicate the dictates of a family firm and these are easy to ascertain from the company profile of the firm or the employee database of the firm.

d. Intention to pass the business to the next generation

Evidence of the three requirements above together with the financing of the firm with family or personal resources of the founder (owner) indicates that it sets to meet family objectives. The intention of transferring the firm onto the next generation would be implied if these requirements are all executed.

4. Conclusions and Recommendations

The study concludes that the construction industry commands significant attention for its huge influence. It also affirms the need for an oversight body to regulate the activities of the sector. The family-owned construction firms constitute the central region of the industry and lead the development effort of the country. This is evidenced by the prevalence of family-owned construction firms in the industry, the bench strength of which can be set on the easy entry and exit to and from the industry. The prevalence of family-owned construction firms is also attributed to their physiognomies.

The lack of a regulating body to oversee the activities of the sector is blamed for the unstructured nature of the Ghanaian construction industry. It is also the reason why an up-to-date list of the exact number of construction firms cannot be ascertained as there are no strict entry and exit rules.

The study concluded that the Ghanaian construction industry is characterized in its fragmented nature, risky, labor-intensive, and requires a whole variety of stakeholders and a split of responsibilities on each project. Despite the high requirement for labor, much of the labor used is usually temporary labor with the financing of each project coming from the client after a competitive bidding system.

The study explored the types, sizes, and areas of operation of construction firms operating in the construction industry and their classification into small, medium, large and multi-national firms (See Figure 3 above).

The study emerged with a conceptual framework attempting to identify and constitute a family-owned construction firm using the unique objective attributes (figure 4).

The study is however constrained by the limited amount of information available on family-owned construction firms.

The practical implications of the study are that government and construction stakeholders need to pay critical attention to this segment of the construction industry since they predominate the sector and could be used directly to influence the growth of

the sector and the economy. The study is novel in the sense that it attempts to outline the significance of the construction industry, exposes the unstructured nature of the industry whilst bring out what constitutes a family-owned construction firm. It is also novel as it merges information from the general business and construction industry and carves criteria for which family-owned construction firms can be identified and classified. Notwithstanding the central position of family-owned construction firms together with their colossal contribution, there is to date no documented information on what constitutes a family-owned construction firm. This is of theoretical significance as it leads the way on studies in this direction and adds to the body of knowledge required by academics and professionals.

The study recommends that following the classification or explanation of family-owned construction firms, academics delve deeper into unearthing streams of knowledge on the subject of family-owned construction firms and their problems especially financing and their inability to stay long in the industry. The study also recommends that practitioners and the government should identify this important segment of the industry and make targeted policies towards leveraging their sustainability and growth to propel the economy.

Funding statement

The authors certify that they did not receive any funding from an external source for this study.

Conflict of interest statement

The authors declare no conflicts of interests.

About the Authors

Che Andrews Anzagira is a PhD Student of Construction Management at the Department of Construction Technology and Management, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Research interests include Construction and Project Management, Corporate Social Responsibility, Procurement, Sustainability, Succession Planning, and Law.

Professor De-Graft Owusu-Manu is an Associate Professor of Construction Business, Economics and Finance at the Department of Construction Technology and Management, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Research interests include Construction Business, Economics, and Finance, Project Finance, Procurement and Project Management, and Sustainability issues.

Professor Edward Badu is a Professor of Construction Management at the Department of Construction Technology and Management, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Research interests include Construction Project Finance, Corporate Social Responsibility, Procurement and Project Management.

References

- ADB (2001), 'Improving the regulatory framework for SMEs: streaming business formalization procedures and facilitating One-Stop-Service', Policy Discussion Paper, No. 7, Asian Development Bank.
- Administrator (2020), Construction Placements. Online Available www.constructionplacements.com/construction-companies/
- Agbim, K. C. (2018a), "Business network effect on the institutionalization of family businesses in South Eastern Nigeria". *Open Journal of Economics and Commerce*, Vol. 1, No. 1, pp. 1-10.
- Agbim, K. C. (2018b), "Enhancing Family Business Succession through Intra-Firm Network: A Survey of Family Businesses in South Eastern Nigeria". *International Journal of Research Publications*, Vol. 9, No. 1, pp. 1-10.
- Ahadzie, D. A. (2007), "Model for Predicting the Performance of Project Managers in Mass Housing Building Projects in Ghana". Ph.D. Thesis, School of Engineering and Built Environment, Wolverhampton University, Wolverhampton, UK, 2007.
- Ahmed, K., Hatira, L., and Valva, P. (2014), "The Construction Industry in Ghana, West Africa "How can the construction industry in Ghana become sustainable?" Master's Degree Thesis, School of Engineering, Blekinge Institute of Technology, Karlskrona, Sweden.
- Alarcón, L. F. and Mesa, H. (2012), "A modeling approach to understand the performance of lean project delivery system". *Proc., 20th Annual Conf. of the Int. Group for Lean Construction, IGLC*.
- Alayo, M., Iturralde, T., Maseda, A., and Arzubiaiga, U. (2016), "Critical Factors for Successful Succession of Family Firms", *European Journal of Economics, Finance and Administrative Sciences*, Vol. 1, No. 85, pp. 89-103.
- Aldrich, H. E., and Cliff, J. E. (2003), "The pervasive effects of family on entrepreneurship: toward a family embeddedness perspective". *Journal of Business Venturing*, Vol. 18, No. 5, pp. 573-596.
- Alkilani, S., Jupp, J., and Sawhney, A. (2013), "Issues of construction health and safety in developing countries: A case of Jordan". *Australas. Journal of Construction Economics and Building*, Vol. 13, No. 1, pp. 141-156.
- Allouche, J., Amann, B., Jaussaud, J., and Kurashina, T. (2008). "The Impact of Family Control on the Performance and Financial Characteristics of Family versus Nonfamily Businesses in Japan: A Matched-Pair Investigation". *Family Business Review*, Vol. 21, No. 4, pp. 315-329.
- Amoah, C. (2018). The impact of foreign construction firms on the capacity building of the local contractors in Ghana. *Proceedings 12th Built Environment Conference, August*. <https://www.researchgate.net/publication/330957486%0A>
- Arditi, D., Polat, G., and Makinde, S.A. (2008), "Marketing practices of US contractors", *Journal of Management in Engineering*, Vol. 24, No. 4, pp. 255-264.
- Arthur-Aidoo, B. M., Aigbavboa, C. and Didibhutu, T. (2016), "Exploring strengths and weaknesses of growth among small and medium-sized construction firms in

- Ghana" *Proceedings of the DII-2016 Conference on Infrastructure Development and Livingstone, Zambia Investment Strategies for Africa: Achieving Solutions for Renewable Energy and Sustainable Development*. 31 August - 2 September 2016.
- Arti, J., Pankaj, and Bhangale, P. (2013), "To study critical factors necessary for a successful construction project". *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, Vol. 2, No. 5, pp. 331 - 335.
- Aryeetey, E., Baah-Nuakoh, A., Duggleby, T., Hettige, H. and Steel, W. F. (1994), "Supply and demand for finance of small enterprises in Ghana". World Bank, Washington D.C.
- Asamoah, R.O. and Decardi-Nelson, I. (2014), "Promoting Trust and Confidence in the Construction Industry in Ghana through the Development and Enforcement of Ethics". *Information and Knowledge*, Vol.3, No.4, pp. 63-68.
- Bee-Lan, O. and Benson, T.H.L. (2011), "A review of Singapore contractors' attitudes to environmental sustainability". *Architectural Science Review*, Vol. 54, No. 4, pp. 335-343. DOI: 10.1080/00038628.2011.613645
- Belenzon, S., Pataconi, A., and Zarutskie, R. (2016). "Married to the firm? A large scale investigation of the social context of ownership". *Strategic Management Journal*, Vol.37, No. 12, pp. 2611-2638.
- Boadu, E.F., Wang, C.C. and Sunindijo, R.Y. (2020), "Characteristics of the Construction Industry in Developing Countries and Its Implications for Health and Safety: An Exploratory Study in Ghana". *International Journal of Environmental Research and Public Health*, Vol. 17, No. 11, pp. 1-20.
- Boakye-Gyasi, K. and Li, Y. (2015), "The impact of Chinese FDI on employment generation in the building and construction sector of Ghana". *Eurasian Journal of Social Sciences*, Vol. 3, No. 2, pp. 1-15.
- Boch-Ocansey, O. (1996). "Strategies for strengthening small and medium-sized industries in Ghana". Anansesem Publications Limited, Accra, Ghana.
- Cabrera-Suarez, K. (2005). "Leadership transfer and the successor's development in the family firm". *The Leadership Quarterly*, Vol. 16, No. 1, pp. 71-96.
- Carney, M. (2005), "Corporate governance and competitive advantage in family-controlled firms." *Entrepreneurship: Theory and Practice*, Vol. 29, No. 3, pp. 249-265
- Chileshe, N., and Boadua Yirenkyi-Fianko, A. (2012), "An evaluation of risk factors impacting construction projects in Ghana". *Journal of Engineering, Design, and Technology*, Vol. 10, No. 3, pp. 306-329.
- Dabrian, S.H., Khanzadi, M. and Moussazadeh, M. (2016), "Predicting labor costs in construction projects using agent-based modeling and simulation", *Scientia Iranica-International Journal of Science and Technology*. Vol. 23, No. 1, pp. 91-101.
- Dadzie, J., Abdul-Aziz, and Kwame, A. (2012), "Performance of Consultants on Government Projects in Ghana: Client and Contractor Perspective". *International Journal of Business and Social Research*, Vol. 2, No. 1, pp. 256-267.
- Darko, E. and Lowe, A. (2019), "Ghana's construction sector and youth employment". Working Paper. Available at <https://www.odi.org/sites/odi.org.uk/files/resource-documents/10787.pdf> [Accessed: December 8, 2020]

- Debarliev, S., and Janeska-Iliev, A. (2015), "Family business characteristics and differences; some insights from developing countries". *11th International Conference on Challenges of Europe: Growth, Competitiveness, and Inequality*, pp. 39–60.
- Diéguez-Soto, J., Lo'pez-Delgado, P. and Rojo-Ramírez, A. (2014), "Identifying and classifying family businesses". *Review of Managerial Science*, Vol. 9, No. 3, pp. 603-634. DOI 10.1007/s11846-014-0128-6
- Dyer, G.W. Jr. (2006), "Examining the 'family effect' on firm performance." *Family Business Review*, Vol. 19, No. 1, pp. 253-273.
- Egbeonu, E. (2007), "Uniqueness, complexity, and Risks in Construction Projects; Implications for Small/ Medium Contractor Development Programmes of South Africa. *CIB World Building Congress*, pp. 3064-3080. Accessed on 4th June 2019 <https://www.irbnet.de/daten/iconda/CIB5261.pdf>
- Egmond, E. and Erkelens, P. (2007), "Technology and Knowledge Transfer for Capacity Building in the Ghanaian Construction Building". In *Proceedings of the CIB World Building Congress, Cape Town, South Africa, 14–17 May 2007*; pp. 1393–1405.
- Enshassi, A., Mohammed, S., and Abushaban, S. (2009), "Factors affecting the performance of construction projects in the Gaza Strip". *Journal of Civil Engineering and Management*, Vol. 15, No. 3, pp. 269 - 280.
- Eyiah, A.K., Kheni, N.A. and Quartey, P.D. (2019), "An Assessment of Occupational Health and Safety Regulations in Ghana: A Study of the Construction Industry". *Journal of Building Construction and Planning Research*, Vol. 7, No.1, pp. 11-31.
- Eyiah, A. (2004), "Regulation and Small Contractor development - A case of Ghana". Centre for Development Policy and Management, University of Manchester, Working Paper Series, No. 80.
- Eyiah, A.K., and Cook, P. (2003), "Financing Small and medium-scale contractors in developing countries: a Ghana case study", *Construction Management and Economics*, Vol. 21, No.1, pp.357-3.
- Fugar, F.D.K., Ashiboe-Mensah, N.A., and Adinyira, E. (2013), "Human capital theory: Implications for the Ghanaian construction industry development". *Journal of Construction Project Management and Innovation*, Vol. 3, No. 1, pp. 464–479.
- Ghana Statistical Service (GSS) (2019), "2018 Annual Gross Domestic Product". Ghana Statistical Service: Accra, Ghana, 2019.
- Ghana Statistical Service (GSS) (2018), "2017 Annual Gross Domestic Product". Ghana Statistical Service: Accra, Ghana, 2018.
- Ghana Statistical Service (GSS) (2017), "Statistics for Development and Progress: Provisional 2016 Annual Gross Domestic Product". April 2017 Edition, 5.
- Ghana Statistical Service (GSS) (2016), "2015 Labour force Report".
- Gómez-Mejía, L.R., Takács-Haynes, K., Núñez-Nickel, M., and Jacobson, K.J.L. (2007), "Socio-emotional Wealth and Business Risks in Family-controlled Firms: Evidence from Spanish Olive Oil Mills". *Administrative Science Quarterly*, Vol. 52, No.1, pp. 106–137.
- Handler, W. (1994), "Succession in Family Business: A review of the research". *Family Business Review*, Vol. 7, No. 2, pp. 133-157.

- Holt, G.D. (2013), "Construction business failure: conceptual synthesis of causal agents". *Construction Innovation*, Vol. 13, No. 1, pp. 50-76. <https://doi.org/10.1108/14714171311296057> [Accessed: December 4, 2020].
- International Trade Administration (2020), Construction and Infrastructure. [Online]. Available at: <https://www.trade.gov/country-commercial-guides/ghana-construction-and-infrastructure>
- Ip, B. and Jacobs, G. (2006), "Business succession planning: a review of the evidence". *Journal of Small Business and Enterprise Development*, Vol. 13, No.3, pp. 326-350.
- Kärnä, S. (2014), "Analyzing customer satisfaction and quality in construction—the case of public and private customers". *Nordic Journal of Surveying and Real Estate Research*, Vol. 2, No. 1, pp. 67-80.
- Khan, R.A., Liew, M.S. and Ghazali, Z.B. (2014), "Malaysian construction sector and Malaysian Vision 2020: Developed Nation Status". *Proceedings of 2nd World Conference on Business, Economics and Management (WCBEM 2013), Procedia Social and Behavioral Sciences*, Vol. 109, No.1, pp. 507-513.
- Khan, R. A. (2008), "Role of the Construction sector in economic growth: Empirical Evidence from Pakistan Economy". Paper presented at the ICCIDC-I, Pakistan.
- Kheni, N.A. (2008), "Impact of Health and Safety Management on Safety Performance of Small and Medium-Sized Construction Businesses in Ghana". Ph.D. Thesis, Loughborough University, Loughborough, UK.
- KPMG International. (2013), "Global Construction Survey 2013 - Ready for the next big wave?" US: KPMG International Cooperative.
- KPMG (2016), Retratos de Família: um panorama do histórico e perspectivas das empresas familiares brasileiras, [Online]. Available at: <https://www.ifb.org.uk/media/1237/buildingfamilygovernanced4-hires.pdf>
- Laryea, S. (2010). In: Laryea, S., Leininger, R. and Hughes, W. (Eds) *Proceedings of the West Africa Built Environment Research (WABER) Conference, 27-28 July 2010, Accra, Ghana*, pp. 215 - 226.
- Lewis, T.M. (2005), "The Demand for Labour in Construction". *Technical Research Centre of Finland, and Association of Finnish Civil Engineers*, pp. 233-242. <https://www.irbnet.de/daten/iconda/CIB6172.pdf>
- Mahamid, I. (2012), "Factors affecting contractor's business failure: contractors' perspective", *Engineering, Construction, and Architectural Management*, Vol. 19, No. 3 pp. 269 – 285.
- Mandl, I. (2008), "Overview of Family Business Relevant Issues". Austrian Institute for SME Research, Vienna.
- Mensah, S. (2004). "A review of SME financing schemes in Ghana. In Financing Small and Medium Enterprises". UNIDO Regional Workshop, Accra, Ghana.
- Ministry of Education (2010) 'Assessment Report of the Construction Industry Skills Demand and Supply in Ghana'. Accra: COTVET.
- Mokhtariani, M., Sebt, M.H., and Davoudpour (2017), "Characteristics of the Construction Industry from the Marketing Viewpoint: Challenges and Solutions". *Civil Engineering Journal*, Vol. 3, No. 9, pp. 701 – 714

- National Board for Small Scale Industries (NBSSI) (1996). "Enterprise Fund: Providing Long Term Financing Support to Small and Medium Enterprises in Ghana". EMPRETEC Foundation, Accra, Ghana.
- Nyoni, T. and Bonga, W. G. (2017), "Towards factors affecting delays in Construction projects: A Case of Zimbabwe". *Journal of Economics and Finance*, Vol. 2, No. 1, pp. 12-28.
- Ofori, G. (2012), "Developing the Construction Industry in Ghana: the case for a central agency". *National University of Singapore*: pp. 1-19.
- Ofori-Kuragu, J.K., Baiden, B., and Badu, E. (2014), "Factors Affecting Ghanaian Contractor Performance". In Proceedings of the CIB W107 2014 International Conference Lagos: International Council for Research and Innovation in Building and Construction, Lagos, Nigeria, 28–30 January 2014; pp. 275–285.
- Ofori, P.A., Twumasi-Ampofo, K., Danquah, J.A., Osei-Tutu, E., and Osei-Tutu, S. (2017), "Investigating Challenges in Financing Contractors for Public Sector Projects in Ghana". *Journal of Building Construction and Planning Research*, Vol. 5, No. 1, pp. 58-70.
- Olebogeng, D. D. (2015), "Economic Development in post-Sichuan Province disaster". Proceedings of the DII-2015 Conference, on Infrastructure Development and Investment Strategies for Africa, 16-18 September 2015, Livingstone, Zambia.
- Osei, V. (2013), "The construction industry and its linkages to the Ghanaian economy: Policies to improve the sector's performance". *International Journal of Development and Economic Sustainability*. Vol. 1, No. 1, pp. 56-72.
- Osei-Kyei, R. and Chan, A.P.C.(2015), "Review of studies on the Critical Success Factors for Public-Private Partnership (PPP) Project from 1990-2013". *International Journal of Project Management*, Vol. 33, No. 1, pp. 1335-1346.
- Oxford Business Group (2014), "The Ghana Report". [Online]. <https://oxfordbusinessgroup.com/ghana-2014/construction-real-estate>
- Oudah, M., Jabeen, F. and Dixon, C. (2018), "Determinants Linked to Family Business Sustainability in the UAE: An AHP Approach". *Sustainability MDPI*, Vol. 10, No. 246, pp. 1-23.
- Owoo, N.S., and Lambon-Quayefio, M.P. (2018), "The role of the construction sector in Ghana" WIDER Working Paper 2018/119.
- Payne, G.T. (2018). "Reflections on Family Business Research: Considering Domains and Theory". *Family Business Review*, Vol. 31, No. 2, pp. 167–175.
- Amoah, C. (2018). the impact of foreign construction firms on the capacity building of the local contractors in Ghana. *Proceedings 12th Built Environment Conference, August*. <https://www.researchgate.net/publication/330957486%0AThe>
- Polat, G. (2010), "Using ANP priorities with goal programming in optimally allocating marketing resources", *Construction Innovation: Information, Process, Management*, Vol. 10, No. 1, pp. 346-365.
- Poza, E. J. (2013), *Family business*. 4th Edition, New York: Cengage Learning.

- Chrisman, J. J., Chua, J. H. and Sharma, P. (2005), "Trends and directions in the development of a strategic management theory of the family firm". *Entrepreneurship theory and practice*, Vol. 29, No. 5, pp. 555-575.
- Schell, S., De Groote, J. K., Hack, A., and Whu, N.K., (2018), "We are family!? Disentangling the owner family in family businesses". *Academy of Management Annual Meeting Proceedings*.
- Skitmore, M. and Wilcock, J. (1994), "Estimating processes of smaller builders". *Construction Management and Economics*, Vol. 12, No. 2, pp. 139-154.
- Smith, S. R., Hamon, R. R., Ingoldsby, B. B., and Miller, J. E. (2009), "Exploring family theories". New York: Oxford University Press.
- Ssegawa, J. K. (2001), "The Unique characteristics of the construction industry and their impacts on the financial management of construction firms". In Conference on Developing the Construction Industries in Southern Africa. DPW, April 2001.
- Suh, I., Park, Y. H., and Park, T. (2008). "Factors Influencing Business Succession". Retrieved May 2, 2016, from <http://www.iiste.org/>
- Tarawneh, S. A. (2014), "Marketing for Service Quality-Contractors' Perception: UAE Case Study", *European Journal of Business and Management*, Vol. 6, No.1, pp. 94-101.
- The Conversation (2019), "Ghana's construction industry is lively but needs regulation". [Available Online: October 15, 2019]. <https://theconversation.com/ghanas-construction-industry-is-lively-but-needs-regulation-124733>
- Tsai, C.C. and Wen, M. (2005), "Research and trends in science education from 1998 to 2002: a content analysis of publication in selected journals. *Int. J. Sci. Educ.* Vol. 27, No. 1, pp. 3 -14.
- Tserng, H. P., Liao, H., Tsai, L. K. and Chen, P. (2011), "Predicting contractor default with option-based credit models – models' performance and comparison with financial ratio models", *Journal of Construction Engineering and Management*, Vol. 136, No. 6, pp. 412-20.
- Tuuli, M., Baiden, B., and Badu, E. (2007), "Assessment and enforcement of liquidated and ascertained damages in construction contracts in Ghana". *Structural Survey (Special Issue: Law in Built Environment)*, Vol. 25, No. 3/4, pp. 204 - 219.
- Vide Engineer-In-Chief U.P.P.W.D. (1980), "Classification and Enlistment of Contractors in the Public Works Department" <http://www.uppwd.gov.in/site/writereaddata/siteContent/201703131251165103Rules.pdf>
- Villalonga, B., and Amit, R. (2006). "How do family management, ownership, and control affect firm value?" *Journal of Financial Economics*, Vol. 80, No. 2, pp. 385-417.
- Vrijhoef, R. and Koskela, L. (2005), "Structural and contextual comparison of construction to other project-based industries", *Proceedings IPRC*, Vol. 2, No.1, pp. 14.
- Wibowo, M.A. (2009), "The Contribution of the Construction Industry to the economy of Indonesia: A Systematic Approach". *International Symposium in developing economies: Communities among Diversities*. Pp. 279-287.

- Worrall, L. (2012), "Organizational Cultures: Obstacles to Women in the UK Construction Industry". *Journal of Psychological Issues in Organizational Culture*, Vol. 2, No. 4, pp. 6 - 12.
- Yi, H. and Wang, Y. (2013), "Trend of the research on public-funded projects". *Open Construction and Building Technology Journal*, Vol. 7, No. 1, pp. 51-62.
- Zahra, S. A., Hayton, J. C., and Salvato, C. (2012), "Entrepreneurship in family vs. non-family firms: A resource-based analysis of the effect of organizational culture". *Entrepreneurship Theory and Practice*, Vol. 28, No. 4, pp. 363-381.

Creative Commons licensing terms

Authors will retain copyright to their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Management and Marketing Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).