

Review Article

Construction Marketing: Developing a Reference Framework

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Successful companies are strongly committed to marketing management. However, marketing is either misunderstood or completely neglected in many construction companies, mainly due to the difficulty of applying conventional marketing in the industry, accompanied by the lack of sufficient research on the nature of marketing and tailored marketing theories and strategies for the construction. This study attempts to fill a part of this gap by examining the nature of the construction industry from the marketing viewpoint and developing a comprehensive framework. A systematic investigation into the nature via a combination of Kotler's product classification system and Lovelock's classification criteria reveals that construction is an "industrial, project-based, and primarily service-oriented" (IPS) product with specific characteristics from the marketing perspective. Based on this nature, a reference framework for strategic marketing planning is developed through a literature review based on grounded theory and using the focus group discussion as a refinement tool. The framework indicates that construction companies are involved in and should plan for three working fields—project-based activities, relationship marketing, and marketing mix-related functions. The findings provide a fundamental basis that helps researchers and practitioners gain a true understanding of the concepts and scope of construction marketing and draw a clear and practical roadmap for future work.

1. Introduction

The construction industry in most countries worldwide is characterized by extreme competitiveness, high risk, and usually low profit margin in comparison with many other industries [1]. The major reason for this intensive competitiveness is the relative ease of entry into the construction industry compared to other industries, even for people or companies with little capital investment [2]. Furthermore, to find a new project, construction firms have to participate in a competitive bidding process, as it is not generally possible for them to induce demand for their services [3, 4]. These conditions lead to a significantly higher rate of business failure in the construction industry than that in many other businesses in the recent decades [5, 6].

In such severe circumstances, construction firms look for ways to win the projects and be involved in areas of construction that may generate more profits [7]. In this context,

marketing can create a sustainable competitive advantage for construction companies and help them differentiate themselves from their competitors.

There are many definitions of marketing. The American Marketing Association defines marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" [8].

According to Arditi and Davis [9], marketing in construction comprises activities such as seeking new clients, new types of construction, and new markets, satisfying clients and keeping them loyal, market research and analysis, offering additional services, project cost estimation and pricing, submitting a modified proposal, negotiating and contracting, and promotional activities including advertising, publicity, brochures, and corporate identity programs.

Marketing management plays a crucial role in the success of a business and directly influences profitability and

customer satisfaction. Similarly, construction companies can achieve several benefits from effective marketing, including an increase in profits, sales, and client satisfaction, developing a brand identity, creating and entering into new markets, and improving customer loyalty, reputation, and overall quality [10]. However, marketing has been either misunderstood or completely neglected in many construction companies [11, 12].

One of the main reasons behind this situation is the difficulty and problems associated with applying conventional marketing theory and techniques, in the construction industry owing to the special characteristics and the marketing nature of the industry [3, 9, 11, 13]. Besides, the number of studies conducted in the field of construction marketing is significantly lower than those in other fields of construction management. The majority of these few studies, especially in the past decade, have endeavored to recommend and investigate the practical applications of traditional marketing theories, with only minor modifications for the construction industry. The works by Arditi et al. [14], Polat and Donmez [12], and Dikmen et al. [10] about marketing practices and orientation of American and Turkish contractors and research works by Polat [3] and Polat and Donmez [7] on marketing resource allocation are examples of such studies. However, like many other management fields of construction in which there is inadequate theory-building/modification according to the nature of the industry [15], the marketing field suffers from this problem too.

Despite the acknowledged importance, there is no literature specific to the theory and characteristics of marketing in the construction industry, and there are only implicit suggestions in a few studies, notably the researches by Smyth [16] and Winter and Preece [17].

Smyth [16] proposes that, in order to develop a marketing theory for construction, one can employ a combination of existing marketing theories and contributions from other industries that are similar in one or more characteristics to the construction industry. In agreement with this idea, Winter and Preece [17] suggest a combination of service and industrial marketing theories and strategies for construction.

These suggestions, on the one hand, are not derived on the basis of a systematic marketing approach; therefore, there is no consensus on them. On the other hand, they are not so comprehensive that they result in a framework for developing a marketing theory for the construction industry. Consequently, comprehensive and methodical research is required in this context.

The aim of this study is to develop a foundation for construction marketing, and two main issues in this regard were addressed: (1) investigation of the marketing nature of the construction industry through a systematic approach based on the principles of marketing science and (2) development of a reference framework for construction marketing.

This article is organized as follows: First, the appropriate method to investigate the nature of marketing is identified and the nature of construction marketing is examined according to this approach. Next, a conceptual framework for construction marketing is proposed and its elements and the

current knowledge gaps in each part are investigated. Finally, managerial implications are discussed.

2. Nature of Marketing in the Construction Industry

The marketing attributes of the product are the characteristics that discriminate it from other products. An obvious relationship exists between the characteristics of a product and the appropriate marketing strategy adopted for that product [20]. A consistent and comprehensive marketing strategy should be based on the attributes of a product. In this context, marketers classify products into categories according to some of their intrinsic characteristics, each of which calls for different marketing strategies [18]. Therefore, the product classification system approach is used to identify the specifications and the nature of marketing in the construction industry and establish a roadmap for construction marketing.

2.1. Benefits of Product Classification. The classification system is the principal tool used by both academic and business researchers to arrange elements into groups in order to systematically study phenomena and develop theories [19]. Product classification supports the sharing of best practices, common problems, and solutions by highlighting differences and similarities between products of in a specific context. Furthermore, different industries with similar attributes can exploit the studies carried out in other similar industries [21].

Classification in the marketing field can assist the manager in acquiring much valuable knowledge from similar business sectors, including the needs and behavior of customers and clients, efficient methods to create and deliver value to the client, and strategies and techniques for customer acquisition, retention, and satisfaction [22].

2.2. Product Classifications in Marketing. Marketing practitioners and academics have long been aware of the advantages of developing special strategies for different product categories, and they have suggested various product classification schemes. Most of these suggestions are limited to specific types of products such as the studies by Copeland [23], Aspinwall [24], and Bucklin [25] in the context of goods, Silvestro et al. [26], Bowen [27], and Liu et al. [28] in services, and Havaladar [29] and Boyt and Harvey [22] in industrial products. Others attempt to cover all products, for example, Winzar [30] and Murphy and Enis [31]. Each of these classifications evaluates products from a different point of view. Besides these categorizations, Kotler—known as “the father of modern marketing”—suggests a classification system based on the inherent characteristics of products to help develop strategies and a marketing mix as the main practical paradigm in marketing. According to the comprehensiveness and applicability of this classification from the marketing perspective, Kotler’s approach to classification has been chosen in this paper to examine the marketing nature of the construction market.

Kotler and Armstrong [18] state that products can be classified on the basis of durability, tangibility, and users (Figure 1), each type possessing its own appropriate marketing

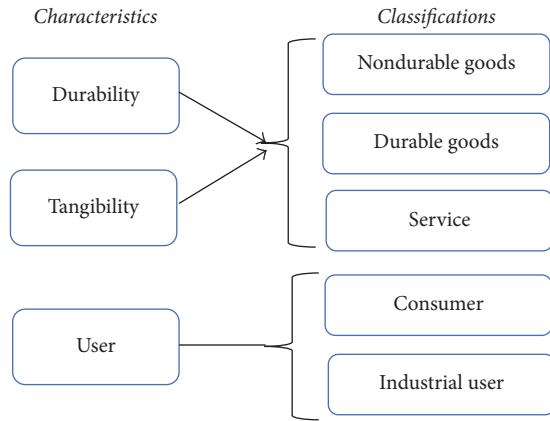


FIGURE 1: Kotler's product classification system. Based on [18].

mix and strategies. In terms of durability and tangibility, the products are categorized as nondurable goods, durable goods, and services. The first category includes products purchased frequently and consumed after one or few more uses. Durable goods are products like machinery that can be used repeatedly. The third class comprises services which are intangible, such as consulting. In terms of the user of the products, there will be two categories—industrial users and consumers.

The following sections examine in which of the above-mentioned categories the construction product falls.

2.3. Construction Product: Goods or Service? It is common to think of a “product” necessarily as a tangible thing, as opposed to services. However, this is a misconception observed in the studies on the field of construction. In fact, services are a subcategory of products. Precise definitions of these terms are provided in Table 1, which can help to truly understand the concept. According to these definitions, the construction product is anything a contractor can offer and deliver to clients to satisfy their needs.

Some researchers argue that the actual product in construction is the service which the contractor provides by selling expertise [32, 33], while others believe that it is neither pure goods, nor a pure service; rather, it is a hybrid process consisting of both goods and service components [34, 35]. None of these suggestions, however, take into account the specifications and definition of these terms from the marketing viewpoint.

In most of the literature on service marketing, service is distinguished from goods by four characteristics—intangibility, heterogeneity, perishability, and inseparability. However, Lovelock and Wright [19] suggest nine basic differences, as the traditional approach is criticized for being too simple to make clear distinctions between the tasks involved in the marketing of services and physical goods. In the following, we investigate each of the nine distinctions in more detail in the context of the construction industry.

Do customers obtain any kind of ownership? Even though the service provided by a construction contractor may be seen as the real product in the construction industry, the client will own a constructed facility, such as a building or a plant.

TABLE 1: Definition of product, service, and goods [18, 19].

Term	Definition
Product	Anything that can be offered to a market to satisfy a want or need, including physical goods, services, experiences, events, persons, places, properties, organizations, information, and ideas.
Service	Any act or performance one party can offer to another that is essentially intangible and does not result in the ownership of anything.
Goods	Physical objects or devices that provide benefits for customers through ownership or use.

Since no permanent ownership of any tangible components accompanies a service, the product provided in the construction industry cannot be assumed to be a pure service from this point of view.

Is the main value obtained from a tangible component? The performance of a service is fundamentally intangible, and the advantages stem from the nature of the performance and not from a physical object that is received. In the construction industry, although clients receive services such as reporting and communication in the project, the main value for them is obtained from the finished final structure, which is tangible.

How much is the customer involved in the production process? Customers of a service assist and are actively involved in the process required to provide the service.

Client involvement in construction projects is very significant. Clients engage in projects from the project definition to the construction phase, and their choices have significant impacts on the features and performance of the end product.

To what extent does the serving staff play a role in customer satisfaction? In many types of services, the contact between the customer and the service personnel is so close that the quality of the service the customer receives is highly influenced by the quality of those serving staffs. Moreover, some services are provided in an environment where customers are inevitably in contact with other customers.

Construction, is also a high-contact sector, as the client is allowed to monitor the whole project delivery process and interfere in all project aspects. Although communication is an integral part of construction project management and communication skills are a major factor in client satisfaction [36], contacts mainly take place at the managerial level and are usually formal and organizational. It should be noted, however, that the performance of the staffs will affect profitability and customer satisfaction [37]; contacts with lower-level personnel are not as important as those in high-contact services.

How variable are inputs and outputs? It is often difficult to standardize the production process of a service and control its variability, because both the customers and the personnel are simultaneously present at the service production site. Additionally, services are consumed as they are produced.

Consequently, more errors can be expected and would be hard to conceal.

Construction has a high level of inherent variability, but this variability has different sources and impacts [38]. The variability in construction is more attributable to the fact that the construction industry is site-based rather than human-intensive. Mistakes and mismatches in construction, unlike in many services, are somewhat recompensable, although usually the recompense takes significant additional time and cost.

How difficult is the product evaluation for the customer? Some attributes of services can be evaluated readily after they are purchased, called “experience attributes.” Others, which may be hard to evaluate even after consumption, are called “credence attributes”; but there are no attributes such as taste, color, and size that can be examined before receiving the service.

In construction, the client cannot assess the performance of the end product (i.e., time, cost, and quality) before selecting the contractor, because the product does not exist yet. During the construction phase, the client may gradually examine the project performance, though the quality can principally be assessed after construction. Therefore, like services, the construction industry emphasizes the experience and credence attributes. Consequently, selecting the appropriate contractor is so complicated that many studies have been conducted to suggest various approaches and methods for it.

Can the product be stored? Service cannot be stored, because it is a performance rather than a tangible element. The capacities of equipment, human resources, and facilities will remain unused unless customers are there to receive them. Therefore, looking for methods to have a continuous demand that is commensurate with the capacity is an important issue in service marketing.

In the construction industry, contractors in most instances cannot create demand [39]; only common buildings such as homes can be constructed before the demand is made. Construction is a particular kind of project-based industries [40], and a key distinguishing feature of project marketing is the discontinuity of demand [41]. The duration of a construction project in which a client is involved is much longer than that in usual service processes. Hence, on the one hand, the periods of time in which contractors do not have enough jobs to utilize their entire capacity may be longer; on the other hand, it is possible to lose an attractive job because of capacity limitations. This characteristic makes project portfolio management critical for optimum employment of human, financial, and equipment resources.

How time-sensitive is the customer? Customers of a service wait at a certain physical or virtual place to receive it, expecting immediate delivery. Thus, the speed of service delivery is a key factor in providing high-quality service and customer satisfaction. Therefore, delay and waiting time management are important issues in service performance management [42]. Increased delivery time (even a few minutes) in many ordinary services such as restaurants may result in losing transactions and customers and switching to competitors [42]. Another issue in this context is the capacity decision

according to the peak arrival times (e.g., dinner time at a restaurant) and trade-off between the overcapacity in low demand and undercapacity in peak times [43].

Although finishing a construction project on time—one side of the project management triangle—similar to other services plays a significant role in customer satisfaction [44], the delay and waiting time in construction project have different nature, causes, and consequences. Furthermore, their timescales are very different as the duration of a construction project is far longer than that of usual services.

Is the product distribution limited to physical channels? Physical channels are essential in distributing manufactured goods, but services can also be delivered through electronic channels or a mix of channels [19].

Distribution channels do not exist in construction like they do in services or manufacturing goods. The meaning of the term “distribution channel” is quite distinctive in construction; it could imply the client’s intended project site or the geographical spread of the contractor’s resources [45]. Therefore, construction, in this context, is different from both services and manufactured goods.

A summary of the results is given in Table 2. As the table shows, some construction characteristics are similar to that of services, and some are partially similar to that of manufacturing goods, while others are completely distinctive.

Many products like construction are neither purely a service nor purely goods. In fact, the share of the service component in a product can vary from minor to major. Kotler and Armstrong [18] distinguish five categories according to the level of service involvement—pure tangible goods, tangible goods with accompanying services, hybrid, major service with accompanying minor goods, and pure service. As shown in Table 2, most of what the contractors offer to the clients are similar to services. Therefore, it can be said they provide a “major service with accompanying minor goods” with the specific characteristics. This result is in accordance with that concluded by Smyth [45]. He noted that majority of the product offered by a contractor is similar to service compared to physical goods.

2.4. User of Construction Product. There are different marketing terms and principles depending on whether the users of a product are industrial users (i.e., business organizations) or consumers (i.e., individuals, families, and households).

Industrial marketing is different from consumer marketing in terms of key marketing areas such as marketing research, marketing mix, buying behavior, buying patterns, exchange transactions, and the nature of demand [29, 46].

The users and buyers of construction products, except real estate, especially residential buildings, are public and private organizations.

Residential buildings are expensive complex products, and their buyers’ behavior from various perspectives is similar to industrial buyers. However, some characteristics of residential market are alike to the consumer markets. Therefore, with regard to the specific characteristics and size of the real-estate and residential market, marketing practices related to these properties are defined as a distinct discipline,

TABLE 2: Service attributes versus construction.

Attribute	Analysis
(1) Customers do not obtain ownership	A hybrid of services and manufactured goods
(2) Service products as intangible performances	A hybrid of services and manufactured goods
(3) Customer involvement in the production process	Similar to services
(4) People as part of the product	Partially similar to services
(5) Greater variability in operational inputs and outputs	Similar to services with different sources and impacts
(6) Harder for customers to evaluate	Similar to services
(7) No inventories for services	Similar to services
(8) Importance of the time factor	Partially similar to services with different nature
(9) Different distribution channels	Different from both services and goods

that is, real-estate marketing and residential marketing, and consequently they are out of the scope of this study.

In conclusion, construction marketing can be categorized as business to business (b2b) marketing.

The construction industry has particular characteristics distinct from other common industrial markets, which requires a tailored marketing framework. From the marketing viewpoint, one of the main distinctive characteristics is the project-driven nature of the industry, which causes many dilemmas. The project-based nature of a product affects marketing models so significantly that researchers have developed a special field in marketing—called “project marketing.” In fact, project marketing is a subcategory of industrial marketing, but different in three key specific features—the so-called “D-U-C framework” [41, 47]:

D: discontinuity of demand for projects

U: uniqueness of each project

C: complexity of each individual project

The literature pertaining to project marketing can be a useful source for the development of marketing theories and strategies for construction, but because of the newness and scarcity of studies in the field [48], the industrial marketing knowledge cannot be totally neglected.

In conclusion, construction is a “major service with accompanying minor goods” based on tangibility and durability. According to the users of the products and the project-driven nature of the industry, it can be categorized as industrial and project marketing. Therefore, the construction product can be called an “industrial, project-based, and primarily service-oriented” (IPS) product based on existing marketing disciplines. However, the construction industry has distinct characteristics in comparison to other ordinal service and project businesses. Consequently, the research processes in Figure 2 were proposed for basic construction marketing knowledge development including tailored theories, strategies, and practices.

According to Figure 2, there are two main sources for construction marketing development, including the existing related marketing disciplines and implications from the specificities of the construction industry. For this development, further studies should be conducted to identify the characteristics of the industry and examine the impacts and importance of each one on marketing management. For the

characteristics whose effects on marketing are similar to the existing disciplines, the related theories and strategies are borrowed. For the specific characteristics of the industries, tailored theories, strategies, and practice should be developed.

Some examples of these similarities and differences are explained as follows:

- (i) Similarity to industrial marketing: Industrial products are complex and usually expensive. Therefore, well-qualified experts are required for negotiating skillfully in technical dimensions as well as in marketing and sales; employing skilled salespeople plays a crucial role in industrial marketing strategy. Similarly, construction companies have to take advantage of people who not only possess technical skills, but are also experienced in sales and marketing.
- (ii) Similarity to common services: The customers of a service cannot evaluate the attributes before receiving it to be able to decide which provider is better. Hence, they need some evidence to evaluate the competitors. To solve this problem, physical evidence is considered as one of the main marketing strategies in service marketing. Likewise, in construction, the client cannot assess the contractors' offer based on their real performance (time, cost, and quality) because the end product does not exist yet. Therefore, construction firms should highlight some evidence that could be investigated by the client during the bidding or negotiation process, such as their past experiences and performance, especially in similar works, as well as their license, capacity, financial strength, and proposal.
- (iii) Difference with common project-based businesses: Existing studies in project marketing, particularly by the International Network for Project Marketing (INPM), emphasize relationship between marketing (RM) and long-term interactive relationship with the customer (Skaates and Tikkanen 2003). In the construction industry, however, the chance to work on several projects with the same client is small, owing to the low repetitiveness and high diversity of the projects. Additionally, in public construction projects, contractors are usually chosen based on the lowest price and not on relationship or previous successful

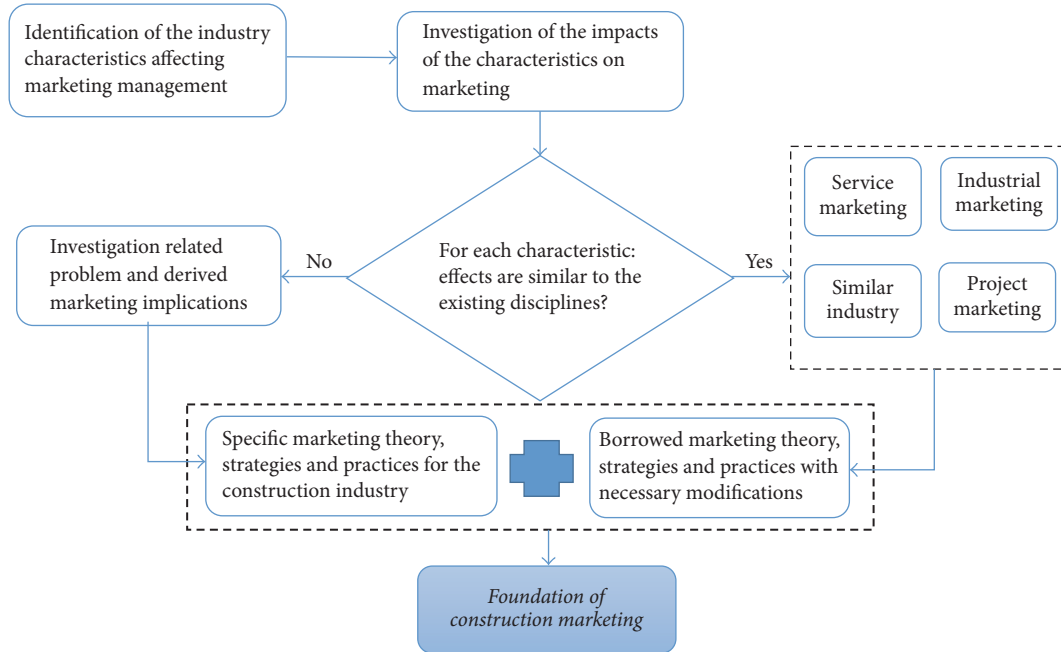


FIGURE 2: Basic construction marketing knowledge development.

projects. Therefore, RM in construction is not as effective as in other project-based industries.

- (iv) Implication from other industry: It is of great value to take advantage of the best practices found in other industries with similar characteristics, in order to decide which strategies should be adopted. For example, as both tourism and construction industries are seasonal, some marketing strategies and techniques used in the tourism industry to tackle related problems may be applicable to the construction industry.
- (v) Specificity of the construction industry: The nature of construction projects as a temporary multiorganization (TMO), in which a large number of subcontractors of different disciplines and cultures are designed to work together for a specified time period, results in low customer orientation. Therefore, in order to implement an integrated marketing program, the general contractor should attempt to manage and coordinate the subcontractors in such a way that all efforts are concentrated on project success and customer satisfaction.

3. Reference Framework of Construction Marketing

As aforementioned, few studies have been conducted on construction marketing, most of which investigate the current marketing practice in construction companies rather than the development of tailored theories, strategies, and practices for construction marketing. In fact, studies in this field have not been integrated towards construction marketing development. Therefore, after investigating the basic nature

of construction marketing, the design of a roadmap and comprehensive framework is the most important step towards the development of construction marketing. Yankah and Dadzie [49] highlighted the necessity of a tailored framework for construction marketing and accounted for the absence of the framework as one of the main reasons for problems in implementation marketing in construction companies. Such a framework can be useful for both academics and practitioners. In the following section, a comprehensive framework is proposed and current knowledge gaps are highlighted.

The framework was developed in three stages: (a) primary and raw data collection; (b) analysis and initial framework development; (c) refinement and final framework development.

In the first stage, the primary data and items were collected through a review of extant literature from three sources: (i) the general marketing framework presented in textbook such as Bearden [50], Kotler and Armstrong [18], and McDonald et al. [51]; (ii) the frameworks pertaining to a specific business or sector, for example, sport, e-marketing, medical devices, social media, and SMEs [52–56]; (iii) all studies on construction and project marketing.

In the second stage, the collected raw data were analyzed and systematically consolidated to build the initial framework. The approach of the grounded theory in data analysis was used for this purpose. Grounded theory is a rigorous methodology to construct a theory or framework and propose a systematic approach in handling, analyzing, and consolidating the data [57]. This approach provides a more accurate and integrated result in literature review than the traditional approach [57]. Data analysis in grounded theory includes coding, constant comparison, and memoing [58].

Coding is the process of extracting and creating concepts from raw data and included three steps: open coding, axial coding, and selective coding [59]. Open coding is carried out to recognize the labels, concepts, and a set of categories based on the excerpts extracted from data sources. The axial coding is used to identify the interrelationship between categories and their subcategories, whereas the selective coding is applied to integrate and develop the relations between the master categories [57]. Constant comparison is about the comparison of the data units and categories for similarities and differences and helps to consolidate the concepts and categories derived from various sources [59]. Memoing is the process of recording the ideas that may emerge during the entirety of the analyzing process [58]. Memo writing assists the researcher to extract the meaning from the data, map the research activity, and communicate in the research team [60]. These analysis processes were applied in this study as follows.

According to the distinct nature, the sources were grouped into general marketing and project-based marketing, and first round of analysis was initiated separately. First, all sources were read carefully; the relevant information and insights were highlighted and main categories, subcategories, and other valuable information about marketing processes were extracted. All extracted data units and elements from data sources were compiled into two master lists (i.e., general marketing and project marketing). The master lists comprised all elements and the source of each element. For example, McDonald et al. [51] offer four main phases for strategic marketing planning including, goal setting, situation review, strategy formulation, and resource allocation and monitoring, whereas Kotler and Armstrong [18] suggest a five-stage process with different name and subcategories. Following this, the main categories of different references were compared for explicit and conceptual similarities and differences to consolidate duplicated groups. Next, the comparison processes also were carried out for subcategories, and relations between the main categories and subcategories were identified. After several revisions of elements and examination of the references, the final labels were assigned to groups. The final classification was built by adding the identified gaps and necessary elements for construction marketing such as the importance of the contract type in project marketing. Meanwhile, useful memos were recorded about the relations between marketing practices and marketing processes, especially the connection of project marketing and general marketing as the main challenge in the framework development. The initial framework was developed by identifying and adding the connections and relations between the categories as well as the project-based part and the general part.

In the final stage, the initial framework was refined through a focus group study. The focus group was conducted with two objectives: (1) to assess the appropriateness of elements and connections of the framework; (2) to cover gaps in the framework. The focus group comprised four academics in construction management and three practitioners (business development managers in construction companies). The experts offered valuable suggestion, the key points of which are mentioned here. Experts believed, according

to the project selection phase in construction marketing, project portfolio management and its relation with marketing decisions should be considered in the framework to reflect its role in this phase. They emphasized the role of political contacts in the acquisition and success of the projects and proposed adding the pool section. They suggested adding the measurement of client's satisfaction function to the transition phase. Moreover, one of the experts recommended that construction companies need a marketing intelligence system as well as marketing research to collect market information. Additionally, they offered to correct the labels of some elements.

The refined and final framework for construction marketing is presented in Figure 3. As Figure 3 shows, the basic knowledge developed for construction marketing, accompanied with the mission and objective of the companies, is the basic input of the framework.

The framework has three main parts: general and basic marketing functions, project-based marketing practices, and ongoing marketing processes. In the following section, the components of each part are explained in more detail, and current research gaps are examined.

3.1. General Marketing Functions. Marketers should first obtain complete and sufficient information about the market before developing marketing strategies and planning to create value for customers. They can get the required information from marketing intelligence and marketing research [18]. Many practitioners and some researchers in the construction industry believe that these two terms are equivalents and usually use the term "marketing research." Marketing intelligence is the systematic monitoring, gathering, and analysis of information available to the public regarding customers, competitors, and events in the market, while marketing research is carried out for specific marketing situations and decisions [18].

Although marketing intelligence system can help construction companies, especially in selecting proper bidding/pricing strategies and in anticipating and identifying the potential projects, particularly in the international market, there has been no study on this topic in recent decades. Only one specific research investigates the role of marketing intelligence in the construction on pricing strategy study in 2001 [61]. However, information technology has changed in recent years; therefore, further studies should be directed towards the examination of various dimensions of implementation of marketing intelligence system, such as source of data, responsibility, benefits, and costs for construction firms.

After collecting the required information from the market, it is necessary to analyze the data and the company's situation for strategy setting. For this purpose, a SWOT analysis should be carried out to assess the strengths, weaknesses, opportunities, and threats of the company [18]. Smyth [45] states many companies initiate a marketing plan with a SWOT analysis in practice. This valuable tool has been used in marketing-related decisions in the industry such as international market entry, market selection, and entry mode selection [62–65]. A well-reasoned SWOT analysis provides

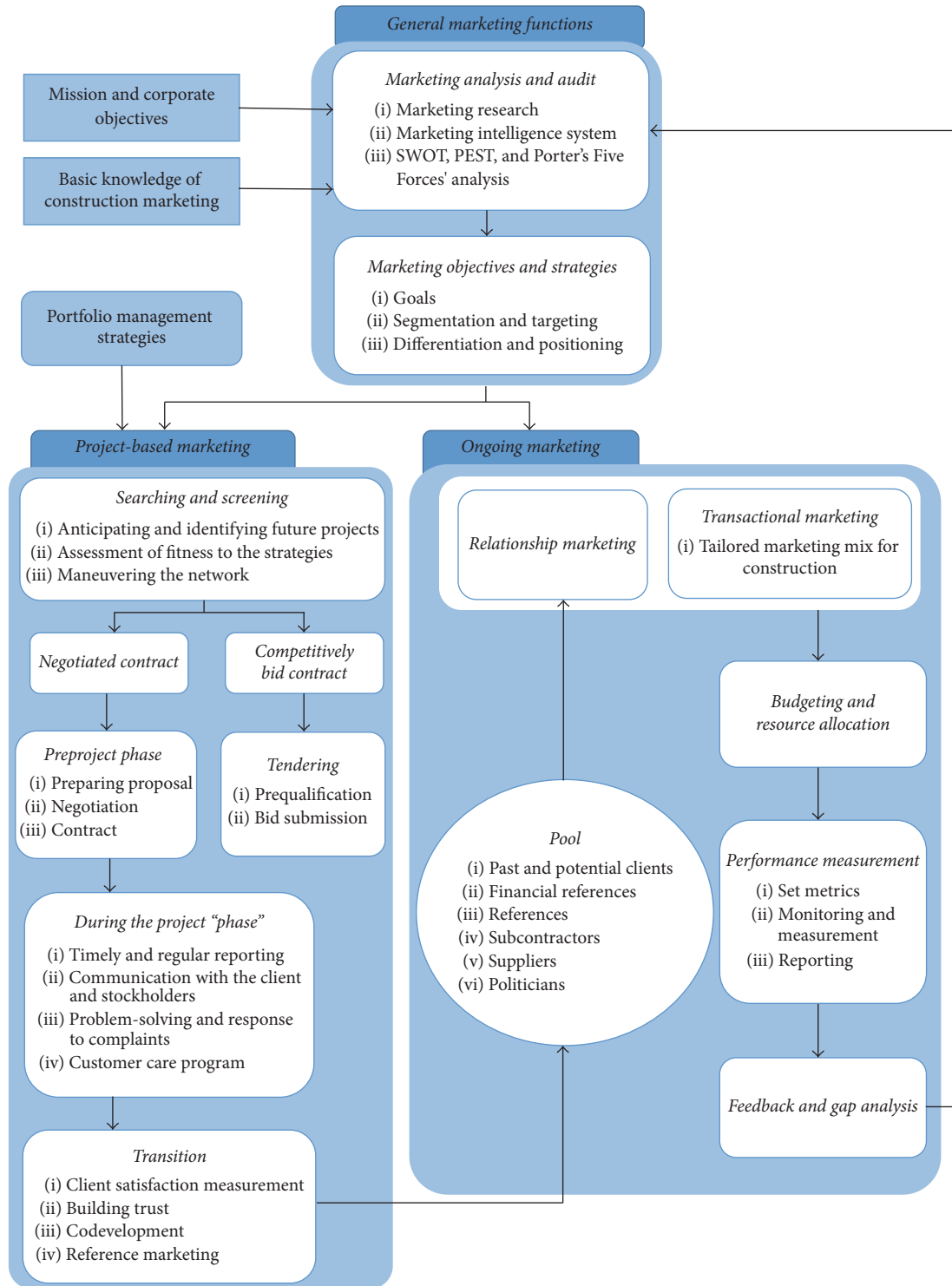


FIGURE 3: Reference framework of construction marketing.

the foundation for development marketing objectives and strategies [51].

Some other analysis tools such as Porter's Five Forces and PEST can also be useful besides the SWOT analysis. Porter's Five Forces' model is a powerful tool for a competitor analysis

and helps to evaluate the market position and strength of a contractor against competitors according to the five competitive forces [66]. The PEST analysis is a useful tool for strategic and marketing planning that assists the construction companies to understand the political, economic, social, and

technological environment as an important parameter in the construction business [66, 67].

Based on marketing analysis and audit, the long-, medium-, and short-term marketing objectives are established. Although the advantages of marketing management in the construction industry have been examined in prior studies, marketing objectives relevant to the industry and current objectives and priorities of construction firms have not been investigated.

To achieve the objectives, companies must develop proper overall marketing strategies that address two key issues—target customers (segmentation and targeting) and how to create value for them (differentiation and positioning). Only very large companies can cover the whole market; other firms with limited resources might adopt only one or a few specific market segments, according to the attractiveness of a segment and the company's objectives and capabilities for serving it. Each market can be grouped and divided into various ways (segmentation), which may be distinctive for different industries. Segmentation based on the characteristics of the industry's market has rarely been considered by construction scholars and professionals. Only Smyth [68] conducted a study on segmentation and examined traditional and innovative approaches for segmentation of the construction market. The target market is also not very clear for construction companies, which causes problems for implementing an integrated marketing plan. Therefore, it is necessary to conduct more studies to investigate the appropriate segmentation approach for construction firms as well as criteria for selection of target market.

After selecting the target markets, a contractor should determine how to differentiate from the other construction companies. Because the construction projects are traditionally awarded through a competitive bidding system based on the lowest price, the cost leadership strategy is well-known and widely accepted among construction companies [69]. With regard to the growth of value-based contractor selection mechanism, several studies have discussed the other differentiation strategies for construction companies in recent decades. The cost and benefits of various differentiation strategies for construction companies, their effects on project acquisition, customer satisfaction, and positioning strategies have not been examined yet.

3.2. Project-Based Marketing Practices. Due to the project-driven nature of the industry and long duration of construction projects, some marketing practices would be project-based for construction companies. These practices start by identifying a potential project and continue even after project implementation. A firm may be simultaneously involved in many projects, all in different phases; specific marketing practices are needed for each space.

Project-based marketing practices have been examined to some extent by researchers in project marketing. However, it is surprising that these and other studies in project marketing have not been considered by academicians in construction marketing. In the following section, each phase of project marketing and the related practices for construction firms are explained briefly.

In the first step, the potential projects are anticipated and identified through the marketing intelligence system and the relationships and links in the business network. The potential projects are examined with regard to general and portfolio marketing strategies. For projects in accordance with the strategies, more information is collected and resources are primarily mobilized.

Regarding the contract type (i.e., competitively bid and negotiated) the rest of the project-based marketing practices are different. Public agencies usually use a competitive bidding process for contractor selection. In this type of contracts, the first important decision of contractors is the bid/no-bid decision, as the tendering is costly and time-consuming activity for construction companies. Several studies have investigated the affecting factors in bid decision, of which some are related to the marketing direction and strategies such as the project's contribution in increasing brand strength and market share, entering new market, and effect in referral markets [70]. If the contractor decided to bid, first they usually should participate in the prequalification process used by clients to evaluate the capability of contractors based on various parameters. Next, the contractor should estimate costs and submit the bid price. Selecting proper pricing strategy (skimming or penetration) and mark-up is the important marketing activity at this stage [1]. If the company is awarded the project in tendering, the project implementation phase initiates. The marketing activities during this phase will be very limited in this type of contracts, because they cannot create future value for contractors.

In negotiated contracts, the clients seek the best-fit proposal according to the needs and more value-added services rather than just the price. Therefore, preparing a strong proposal according to the needs and interests of clients is the most important practice. Products of a construction project are one-off. Therefore, each project has its own unique specifications and processes—its final products do not exist during tendering and before completion of the implementation phase. Consequently, contractors should emphasize their capabilities, competitive advantages, and unique and extra services in their proposals. A proposal should be considered as a rigorous marketing tool that can significantly help in obtaining new projects.

Selecting the proper strategies and the method of pricing is another important decision in this step. Although studies, especially that of Skitmore and Smyth [71], have examined the pricing strategies from the marketing viewpoint, the dominant pricing approach in the industry is the cost-based method, while the marketing perspective is neglected in practice [72, 73].

If the contractor is awarded the project, project marketing is continued and the implementation phase is initiated. The technical issues and the nine project management knowledge areas have been observed in the implementation phase by project managers and construction companies, rather than the marketing efforts. However, project managers can significantly promote the perceived value received by customers by using the marketing approach and marketing functions such as regular reporting, effective communication, problem-solving, and other customer care practices. It is obvious that

these marketing practices are time-consuming and costly. The level of service delivered to a client in a project is affected by parameters such as the potential of new project acquisition from the customer, profits, customer lifetime value (CLV), reference role, and super-reference role.

After project implementation, marketing efforts are also continued in the transition phase. Measurement and attempts to improve client satisfaction and perceived value are the first activities in this step. Effort to reinforce the relationships with key personnel of the client company in the final contacts is another practice to build trust and initiate a long-term relationship after the project.

After the completion of the project, client references—particularly from reputable clients—can be leveraged as a marketing asset. The customer reference is an effective marketing tool for the project businesses, which can increase reputation and brand strength and help in project acquisition [74].

In order to overcome the problem of relationship discontinuity after the project, the contractor should manage the relationship with the client in the sleeping phase (the period between active projects) to create potential for future projects. However, maintaining sleeping relationship in the construction industry is harder than in other project businesses, due to the characteristics of the construction industry.

Finally, the client organization and its key personnel are added in the business network, and RM is initiated to improve the chances for new project acquisition.

3.3. Ongoing Marketing Processes. Some of the marketing practices of construction firms are independent of the current projects. There are two main marketing paradigms in this context—RM and marketing mix.

RM focuses on long-term relationship with clients and other parties in the business network. The business network includes both direct business parties such as past and potential clients, subcontractors, and suppliers, and indirect players of the industry, for example, financial references, politicians, regulators, professional institutions, trade unions, and universities. RM provides several benefits for construction companies, including increasing repeat referral business, creating close relationships for better understanding needs and values of clients and stakeholders, and offering services tailored to the client's expectations [75]. RM is the key issue considered in project marketing studies due to the relationship discontinuity nature of project businesses. It is claimed that RM, from a theoretical perspective, is more consistent with the construction characteristics than marketing mix. However, contractors do not allocate enough resources in practice for RM at present [75]. More studies should be conducted to examine the benefits and cost of RM (preferably in financial terms), strategies and practices in this context, and the implementation challenges for contractors.

The marketing mix is the set of controllable marketing tools that marketers blend to satisfy the target markets [18]. Marketing mix strategies are more focused on the transactional marketing approach. It is claimed that marketing mix is challenging for construction firms, which are shifting from marketing mix to RM [75, 76]. However, because a contractor

may be involved in only a few projects simultaneously and the total number of projects with one specific customer is often low, the role of RM is less in comparison to that in other project-based businesses, and transactional marketing strategy (marketing mix) is also important for construction companies. In fact, they are complementary paradigms.

The problem in applying the marketing mix in the industry is somewhat related to the approach of the academics and practitioners. They only suggest an effort to apply the marketing mix elements of well-known marketing disciplines—especially service marketing—or some minor modification. However, the construction industry has specific characteristics and needs to develop a tailored marketing mix.

It should be noted that how the firms get their projects is one of the important parameters in the marketing direction of the construction companies, particularly about balance of the resource allocation and trade-off between these two main marketing paradigms. Contractors get their jobs through competitive bidding or negotiations and the referral market. A contractor may acquire their projects through both approaches or exclusively one of them.

The benefits and value of RM are very limited for those who get their works exclusively through competitive bidding, because the price and price-related factors are often the only parameters in contractor selection in these contracts, and past project and relationship with these clients could not help to get another project from them. Therefore, the transactional marketing strategies, that is, marketing mix particularly pricing strategy, and cost leadership strategy to achieve a sustainable lower price are the main strategies for these companies.

In contrast, contractors who get their jobs almost or absolutely through past clients and referral markets should concentrate on building the long-term relationship with business network, especially clients, and allocate more resources to RM than marketing mix activities. For example, a large company such as ACS Group obtained about 72 percent of its sales in 2015 from recurrent clients [77]. This company attempts to build a close relationship with clients based on the approaches such as regular meeting, customer satisfaction measurement, and problem-solving focus as well as implementation of a computerized CRM system to collect the clients' information [77].

Many contractors get their jobs through both the competitive bidding and negotiation. These firms employ a combination of marketing mix and RM strategies. For instance, Skanska group earns most of its sales from large public agencies and the rest from smaller private clients [78]. Therefore, this company uses both transactional and relational perspective (such as CRM system) in the marketing program [78].

The marketing budget should be set after strategy formulation. There are several approaches for the determination of marketing budget, such as a percentage of sales, competitive parity, affordability, objectives and tasks, and econometric and optimization models. There is no academic study on the currently prevailing budget determination approach among construction firms, and only associations such as construction marketing association examine this subject through annual online surveys. Therefore, there is a research gap in

current budget determination methods within the industry's firms as well as optimum approaches according to the company's characteristics.

The scarce marketing resources of contractors should be allocated optimally between marketing activities to maximize the marketing performance. Several methods have been suggested for optimal marketing resource allocation. However, in construction, only Polat [3] used a combination of ANP priorities with goal programming. Other methods have not been examined or compared to determine the best and most practical approach for the industry's companies.

After implementation of a marketing plan, the performance should be measured and assessed. Many studies have been conducted in recent years on this subject and its linkage with firm performance, owing to increasing pressure on marketers from top managers to reveal the effects of marketing expenditure on business outcomes [79]. For this purpose, marketers choose and set financial and nonfinancial metrics for performance assessment and finally report the result to top managers.

Marketing performance measurement is more difficult for construction companies than for other industries due to the characteristics of the industry. This issue results in the difficulty faced by construction marketers in convincing senior managers to allocate enough resources for marketing activities. Despite the major importance of marketing performance measurement in building firms, there is no literature on this topic among the industry's firms.

Finally, marketers get feedback for developing the next plans. In this step, the strength and weakness of the current plan and the effects of the program on profitability, project acquisition, and customer satisfaction should be considered for future plans. Also, the gap in achieving each objective is examined and marketing strategies are set according to them.

4. Managerial Implications

This study offers significant implications for three groups of construction managers including senior managers, business development and marketing managers, and project managers.

The proposed framework can help senior managers and marketers get a true understanding of marketing practices and their scope within the construction industry. According to the framework, construction companies are involved in three groups of practices—project-, relationship-, and transaction-based activities—all of which are important for business development.

The project-based efforts result in improvement of the client's perceived value, increase in the probability of future projects with the same client, and even conversion of the clients to super-references that recommend and encourage other clients to work with the company.

Relationships with business network parties are very crucial for a project-driven industry. Close relationships with clients increase the chances of new projects with the same clients and significantly decrease the transaction cost. Relationships with suppliers and subcontractors decrease the cost of service and also help deliver integrated services to

clients. Relationships with politicians and regulators facilitate foreign project acquisition and help resolve the social and environmental challenges facing the projects, especially municipal and infrastructure projects, and the company's growth.

Transaction-based marketing (marketing mix-related activities) promotes the brand awareness and image of the company, improves the probability of bidding award, and also increases the project profitability through the premium price.

According to these benefits, senior managers should allocate enough resources to each of these three marketing areas and also evaluate the performance of the marketing activities based on metrics. They have to focus on the CLV instead of maximizing a single project's profitability. This viewpoint towards the project would be transformed by project managers into commitment to project marketing.

Marketing managers should develop the necessary plans for each marketing field. They have to develop measurable metrics for the marketing efforts' assessment, in order to present the effects of marketing management on business performance for top managers and convince them to allocate adequate resources. They should also have a close relationship with project managers to maximize the client's perceived value in every project.

Since the major relationship with clients is formed during the project implementation, project managers—as the frontline staff of the company in contact with clients—have a significant role in development of long-term relationship with clients. Therefore, they should be aware of their marketing duties during the project management and commitment to marketing responsibility, apart from other fields of project management. They have to consider the customer value in all communications and facing probable challenges and conflicts with clients.

5. Conclusion

Highlighting the principles of marketing science, a systematic examination of the marketing nature of the construction industry suggests a combination of Kotler's product classification system and Lovelock's classification criteria, which reveals that construction is neither a pure service nor pure goods; rather, it is a "major service with accompanying minor goods." Furthermore, a discussion on the users of the products and the project-driven nature of this industry makes it necessary to consider industrial marketing and project marketing as two inseparable references for construction marketing. Therefore, a construction product can be considered as an IPS product accompanied by specific characteristics. This complex nature justifies why construction marketing is so backward. Due to this nature, certain research processes were suggested for developing the basic knowledge of construction marketing. This scheme provides a clear road to scholars for the development of tailored theories, strategies, and practices of construction marketing.

As an essential and fundamental part of construction marketing, a strategic marketing planning framework was developed, which shows the scope of construction marketing and its components. This reference framework shows that

construction companies are involved in three marketing working fields—project-based marketing activities, RM, and marketing mix-related practices. They should plan for each field and allocate adequate resources.

This research provides a foundation that helps both practitioners and researchers get a true and clear perception of the nature and scope of construction marketing. The study also identifies the current research gaps in construction marketing and suggests many research subjects in this field for researchers. It is hoped that this study facilitates more studies to be conducted on this topic, resulting in greater attention to construction marketing.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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