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Operational process stages of brand alliances

Operational
process stages

A case study from the reinforcing bar and the construction industries

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Abstract

Purpose – The purpose of this research is to investigate how companies in the reinforcing bar industry and the construction industry operate and implement brand alliances.

Design/methodology/approach – This research uses a qualitative interview survey and the grounded theory method to extract key factors of brand alliance development and management in the targeted industries. The interview survey included six managers from different construction companies in Taiwan.

Findings – This research identifies four common firm-level operational process stages (core categories) of brand alliances including different multidimensional factors, and proposes a conceptual model based on these identified core process stages. The four common core process stages include selection of brand alliance partners, communication with brand alliance partners, enforcement of brand alliances and assessment of brand alliances.

Originality/value – The proposed model offers a tentative explanation of the development and management of brand alliances between the reinforcing bar industry and the construction industry. This study represents an initial research attempt in this field and explains how reinforcing bar and construction companies operate and implement brand alliances.

Keywords Grounded theory, Construction industry, Qualitative research, Brand alliances, Ingredient branding, Reinforcing bar industry

Paper type Research paper

1. Introduction

Products provided by the reinforcing bar industry are generally not widely known amongst final house buyers. The quality of these products and brands is only recognizable to intermediaries or civil engineering professionals (i.e. steel wholesalers, steel retailers and construction industrialists). Thus, marketing information on the quality of such products can only be transmitted to intermediaries, which leads to intense price competition in the reinforcing bar industry. One possible solution to



overcome this problem is to rely on brand alliances. Brand alliances can be an effective strategy to signal unobservable quality when consumers lack accurate information regarding a brand's true quality (Rao *et al.*, 1999; Voss and Tansuhaj, 1999). In brand alliances, a firm's benefits derived from a strong brand name include greater customer loyalty (Keller, 1998; Mascarenhas *et al.*, 2006), less vulnerability to competitors' actions (Keller, 1998), product differentiation (Bharadwaj *et al.*, 1993) and larger profit margins (Yoo *et al.*, 2000). If the marketing information from the reinforcing bar industry can be transmitted to final house buyers, it will influence the business models in the supply chain between the reinforcing bar industry and its intermediaries. Thus, the competitive advantages of the reinforcing bar industry can be enhanced and the intense price competition can be alleviated.

Although brand alliances have been known to play an important role in leveraging brand strength and growing brand value (Arnett *et al.*, 2010; Esteban-Bravo and Lado, 2011; Gammoh and Voss, 2011), little is known about either the operational processes of brand alliances or factors affecting them at the firm level. It is especially important to understand the formation of brand alliances at the firm level in today's turbulent and uncertain market environment.

The purpose of this research is to investigate how companies in the reinforcing bar industry and the construction industry operate and implement brand alliances. This research uses a qualitative interview survey and the grounded theory method to extract key factors of brand alliance development and management in the targeted industries. This research proposes a new model, consisting of four core operational stages including several multidimensional factors, to offer a tentative explanation for the development and management of brand alliances between the reinforcing bar and the construction industries. In this research, data were collected through interviewing construction industrialists and professional managers. The collected data were analyzed using open coding and axial coding from the grounded theory method. However, in the grounded theory method, data are selectively coded until the process reaches theoretical saturation (Strauss and Corbin, 1998). Thus, the Main categories and the axes were developed using open and axial coding while selective coding was used to develop brand alliances for four core firm-level operational process stages of the two industries.

This work contributes to existing brand alliance research by identifying core operational stages in firm brand alliance behavior and by developing a conceptual framework for the antecedents of brand alliance formation. This is important not only because such an investigation is needed, but also because this paper can fill this gap in the literature.

The remainder of the paper is organized as follows. To begin with, a literature review on issues related to brand alliances is presented in Section 2. The aim of this section is to provide a theoretical foundation of the conducted research. After that, the research method is further explained and discussed in Section 3. Thereafter, the research findings are presented and discussed in Section 4. In this section, the findings from the fieldwork are reported and the emerged model from the qualitative data analysis is presented. Finally, the research is discussed and concluded in Section 5. In this section, our findings are related to previous literature and the theoretical and managerial implications of the research are put forth.

2. Theoretical foundation

A brand alliance is a cooperative arrangement between two or more brands to provide new products for customers or to strengthen customers' recognition of the products (Cooke and Ryan, 2000; Rao and Ruekert, 1994; Simonin and Ruth, 1998). In general, forms of brand alliance strategies include joint promotions, ingredient branding, advertising alliances, bundling and co-branding (Helmig *et al.*, 2007). Joint promotion signifies products of two complementary brands that are shown together to consumers, and each product can be purchased individually. Ingredient branding indicates that a product contains the product brand and the ingredient brand, and that neither can be purchased individually (Rodrigue and Biswas, 2004). Keller (2008) elaborated this description, stating that ingredient branding refers to the design of materials, ingredients and components of the main brand products; the aim of this is to enhance the brand equity of the main products, and especially to develop brand equity for essential materials, ingredients and components that are main products of other brands. For instance, computers that include the products of Intel Inside® are an example of ingredient branding. An advertising alliance is the simultaneous mention of different suppliers of various products in one advertisement (Bergen and John, 1997; Helmig *et al.*, 2008; Samu *et al.*, 1999). Bundling occurs when two or several products and services become a single sales unit, which becomes cheaper than selling them separately (Lin, 2013). Co-branding represents a long-term brand alliance strategy in which one product is simultaneously branded by and identified with two brands (Helmig *et al.*, 2008). Among these five forms of brand alliance strategies, co-branding is the most frequently used approaches (Lin, 2013; Walchili, 2007). Co-branding may reinforce a partner's brand equity and refresh its brand images (Grêbosz, 2012). Successful co-branding may result in transference of the three virtues of brands, which include the clear and consistent communication of the co-brand's claims, differentiation of the co-brand from its competitors and enhancement of the esteem and loyalty of its customer and stakeholder groups (Grêbosz and Otto, 2013; Balmer, 2001).

Thus, the advantages of brand alliances lie in allowing manufacturers to obtain positive advertising effects, cutting their marketing costs and conveying information on product quality, thus making consumers familiar with the quality of the products and the brands (Smith and Park, 1992). Rao and Ruekert (1994) elaborated on this view, stating that the strength of brand alliances is that cooperation of the alliances in core techniques can compensate for deficient product attributes and information, improve consumer identification and convey better information on the quality of the products than a single brand could. In this way, brand alliances help consumers to make purchase decisions.

In general, papers that research brand alliances may be divided into three major types (Li and He, 2013). First, research on the effects on brand alliances studies the effect on brand alliances by focusing on various factors influencing the formation of attitudes toward the newly formed brand alliances (Lafferty *et al.*, 2004; Park *et al.*, 1996; Voss and Gammoh, 2004; Washburn *et al.*, 2000). Second, research on the effects of brand alliances examines the spillover effects of brand alliances on subsequent attitudes toward the partner brands (Gammoh *et al.*, 2006; Lafferty and Goldsmith, 2005). Third, research on international brand alliances investigates how native consumers evaluate international brand alliances between foreign and native brands (Lee *et al.*, 2013; Li and He, 2013).

These growing bodies of previous studies of brand alliances mainly focus on whether a brand alliance had a positive effect on consumers' brand evaluations, and investigate the moderating effect of consumer characteristics on such evaluations (Desai and Keller, 2002; Gammoh *et al.*, 2010; Geylani *et al.*, 2008; Park *et al.*, 1996; Simonin and Ruth, 1998; Rao and Ruekert, 1994; Rao *et al.*, 1999). Few studies have investigated issues regarding the dynamic processes of brand alliances. What do managers care about when they consider a brand alliance? For example, what are the benefits and costs? With whom should they form an alliance? What factors affect the performance of a brand alliance? How can they assess the performance of a brand alliance? These questions can be divided into three areas of research focus regarding brand alliances: formation, communication and assessment of effectiveness. These three areas are discussed further in turn below.

Brand alliance formation decisions are complicated and include considerations such as which type of brand alliance to use and how to find potential alliance partners (Rao and Ruekert, 1994). In general, the antecedents of brand alliance formation include a company's internal environment (e.g. managers' attitudes and experiences), industry characteristics (e.g. intensity of competition) and the external environment. These factors are important reference points for managers' decisions (Gammoh and Voss, 2011). The selection of brand alliance partners usually involves the assessment of partners' characteristics, such as similarity, complementary resources, potential ability and reputation. These factors are the keys to the success of a brand alliance. Therefore, how to choose a proper alliance partner is an important issue.

The objective of a brand alliance is to improve the image of a product and consumers' evaluation of it (Park *et al.*, 1996) by forming alliances with other famous companies and brands. However, inadequate communication and operation of a brand alliance leads to brand dilution and causes consumers to misjudge the brand (Keller, 2008). Therefore, identifying the key factors in the success of communication and operation of brand alliances is another important issue in this investigation.

The objectives of the implementation of a brand alliance are different, and may be to either increase market share, increase the value added of company products or increase brand awareness (Norris, 1992; Rao and Ruekert, 1994; Park *et al.*, 1996; Desai and Keller, 2002). Regardless of the objectives of a company's brand alliance, there is a need for clear indicators to assess the performance of a brand alliance. However, in terms of the issues concerning the assessment of performance of brand alliances, those between the construction and the reinforcing bar industries have not been investigated in previous studies. On the basis of the three issues, this research seeks to develop a conceptual framework for the whole process of brand alliances regarding structure and operations at the firm level.

3. Research method

The grounded theory method of qualitative research is applied in this study. A grounded theory approach is defined as a qualitative research method that uses a systematic set of processes to develop an inductively derived grounded theory about a phenomenon (Charmaz, 2006; Kim *et al.*, 2009; Strauss and Corbin, 1990). This theory has been primarily used to develop a derived theory about a phenomenon, either where theory had previously not existed or where it is judged to be inadequate (Kim *et al.*, 2009). Thus, the grounded theory approach was selected in this study for two main

reasons. Firstly, no research is available on firm practices relating to firms' brand alliance behavior. In situations where little is known about a topic, qualitative methods are considered the most appropriate research approach for initial discovery-oriented investigations (Charmaz, 2003; Goulding, 1998; Strauss and Corbin, 1998). Secondly, a goal of this research is to learn more about the phenomenon and develop a framework that lends itself to future quantitative testing. Grounded theory helps to develop midrange theories that may be verified by future confirmatory empirical research (Glaser and Strauss, 1967). For these reasons, grounded theory was considered the most suitable methodology to guide this research.

Grounded theory allows researchers to apply their own particular experiences, professional knowledge or literature to develop an outline for pilot interviews before entering the research field (Strauss and Corbin, 1990). Thus, in terms of the literature review and one author's 12 years of experience in the marketing department of a reinforcing bar company, the outline for pilot interviews was drafted. The study initially used purposive sampling to ensure that field data was collected from participants who were familiar with the phenomenon (Maxwell, 1996). Thus, the authors initially invited two professional managers from construction companies DH and SY in Taiwan for individual in-depth semi-structured pilot interviews. The pilot interviews ranged between 300 and 320 minutes in duration and were intended to identify key themes and issues relating to firms' brand alliance behavior. Each interview was recorded in full. The records were then transcribed and sent to the interviewees to proofread. Thereafter, an interview guide was developed based on these transcripts for the main phase of data collection in this research.

After initially using purposive sampling, additional participants were selected based on theoretical sampling guidelines (Strauss and Corbin, 1998). Theoretical sampling is used to expand, test and inform emerging concepts so that theory can more fully develop (Flint *et al.*, 2005; Goulding, 2001; Glaser and Kaplan, 1996). Therefore, additional participants were selected on other bases (such as their companies and job titles) to test aspects of the provisional developing theory and review emerging concepts further. In this study, the final sample consisted of six managers from a variety of construction companies who had direct experience of marketing. The construction companies from which interviewees were drawn are denoted DH and SY in northern Taiwan, FW and LSF in central Taiwan and DI and SJ in southern Taiwan.

The data analysis within the grounded theory method contains three procedures: open coding, axial coding and selective coding. In open coding, transcripts are conceptualized sentence-by-sentence, line-by-line and paragraph-by-paragraph to identify concepts and give them a name. Concepts of similar events are categorized as a subordinate category, and are conceptualized at a higher level to give them a name. In axial coding, subordinate categories of the same phenomenon are classified into a Main category and conceptualized at a higher level to give them a name. In selective coding, the attributes, dimensions and ranges that determine the dimensions of the Main category are categorized. This means that the Main category is further developed and explained in order to reach theoretical saturation.

In this research, the Main categories and the axes were developed using open and axial coding while selective coding was used to develop brand alliances for four core firm-level operational process stages of the two targeted industries. In total, interview transcripts were categorized into 16 Main categories that govern subordinate categories

(attributes), concepts, dimensions and ranges. The Main categories in this research converged toward four core categories of brand alliances. To explain the meaning of the core categories better, the term “core category” was replaced with the term “stage”. Thus, our interpretation of the results yielded four stages of brand alliances.

4. Results and analysis

The grounded theory data analysis revealed four operational process stages (or core categories) of brand alliance, which constitute our proposed conceptual brand alliance model (Figure 1). The first stage was selection of brand alliance partners, the second stage was communication between brand alliance partners, the third stage was enforcement of brand alliances and the final stage was assessment of brand alliances. The four process stages of brand alliances are further described and analyzed below.

4.1 Stage 1: selection of brand alliance partners

The first stage, selection of brand alliance partners, includes three Main categories:

- (1) business concepts of the construction companies (Main category 4);
- (2) construction companies' market segmentation (Main category 3); and
- (3) construction companies' sales categories (Main category 1).

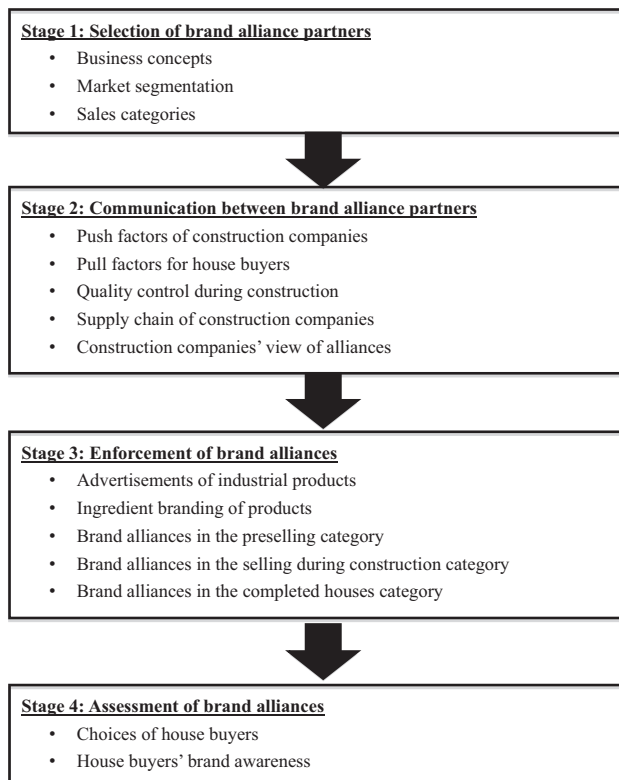


Figure 1.
Model of the
operational process
stages of brand
alliances

The Main category, business concept of the construction companies, includes three attributes/factors.

4.1.1 Attitudes toward employees. Constructing a building requires construction companies to integrate numerous construction items. Therefore, purchasers of houses cannot but rely on the integrators, that is, choose to trust the construction companies. One of the participants commented:

Construction companies' business concepts can be judged from the companies' attitudes toward employees, which means whether the construction industrialist provide long-term and professional training, take care of their employees' lives, or encourage them to purchase their houses and give them discounts.

4.1.2 Attitudes toward the structural quality of houses. Construction companies' attitudes toward controlling the cost of houses should be observed. Some construction companies fix prices to maintain the fixed costs between them and their suppliers, thus avoiding fluctuations in the prices of the materials. Moreover, they can control their marketing costs and retain the discounts for the house buyers, thereby maintaining the value of their buildings. One participant stated:

By assessing whether the construction companies have ever encountered losses from their buildings, their level of expertise in various construction skills, the quality of their construction materials, and whether they alter the quality of the parts of the structure that are visible to house buyers, or if the materials are replaced, we can judge the construction companies' concept of structural safety.

4.1.3 Attitudes toward sales categories. Construction companies' corporate resources may be distinguished by differentiating their sales categories. Based on whether a company invests its own funds or requires advance payments, the construction market can be organized into three systems of selling: preselling, selling during construction and selling completed houses. In terms of completed house category, a construction company needs to create value and increase its stock price. Therefore, it must maintain its houses and properly decorate them to boost sales. A construction company's price decisions are affected by choice of suppliers or cost of the buildings. One participant explained:

Some construction companies that exclusively presell houses will extend the warranty period and provide after-sales service within a limited period to gain their customers' trust and differentiate between the presold and completed house categories.

The Main category, construction companies' market segmentation, includes two attributes/factors.

4.1.4 Company resources. Under conditions of limited corporate resources, a construction company's scope for development is confined by this limitation and construction time. Because of horizontal competition and different market shares, most construction companies provide a specific range of products and advertise their professional construction credentials. One participant reported:

Only a small part of the listed or OTC (over-the-counter) companies are able to advertise nationally, offer social events, or cooperate in governmental activities, thereby enhancing the brand awareness of their customers.

4.1.5 Companies' target customers and product positioning. Construction companies' target customers can be divided into categories such as domestic and foreign, and those that wish to live near recreational areas or their workplace. One of the participants expressed the following view:

As for product positioning, construction companies' products such as luxury and moderately priced apartments can be classified by cost and price, and house buyers can be differentiated into those who purchase houses for the first time and those who intend to relocate, the social hierarchy of the buyers, and the location and quality of the houses.

The Main category, construction companies' sales categories, includes two attributes/factors.

4.1.6 House selling style. In terms of house construction status, there are three distinct types of house sales: preselling, selling during construction and selling constructed houses. Because construction companies have limited funds at their disposal, preselling helps them maintain the capacity to perceive market changes and provide opportunities to test the market. Even if the market tests fail, preselling allows construction companies to alter their products quickly and thereby reducing their risks. Because the architectural design of houses in this category is finished and there is little flexibility, house buyers can see the completed houses and even move in after adornment and payment, which avoids the risk of advance payment that occurs in the preselling category. One participant stated:

As far as the real estate agencies are concerned, they do not emphasize the decoration of the unsold houses but rather the types of purchasers who would be suitable. Meanwhile, construction companies reduce the volume of advertising for the unsold houses in response to economic pressures. However, alliances and cooperation between the reinforcing bar industry and the agencies remain possible because the ways in which they form such alliances can depend on the number of houses sold by the respective agencies.

4.1.7 Price discrimination. Products of the construction companies are differentiated according to target customers and price. In terms of price, there are luxury apartments, those above medium price and average-priced apartments. One of the participants clearly affirms that: "Actually, the construction companies sell different products through different channels to different target markets at different times".

4.2 Stage 2: communication between brand alliance partners

The second stage, communication between brand alliance partners, includes five Main categories:

- (1) push factors from the construction companies (Main category 2);
- (2) pull factors for house buyers (Main category 6);
- (3) quality control during construction (Main category 7);
- (4) supply chains of construction companies (Main category 8); and
- (5) construction companies' view of alliances (Main category 14).

The Main category, push factors from the construction companies, includes five attributes/factors.

4.2.1 Packaging of products. Potential house buyers choose construction companies according to brand image, and the buyers tend to select construction teams that possess

a corporate conscience and a high degree of specialization. In contrast, construction companies emphasize the overall impression when selling their products; decisions on packaging are based on the construction materials and locations of the houses. For example, one participant stated: "The companies may stress the convenience of living in the houses, the expertise of their construction teams, their sales performance, or the seniority and background of their construction teams".

4.2.2 Marketing tools. Construction companies take advantage of their advertising budgets, using various advertising tools such as direct mail (DM), TV, billboards, magazines, journals, exhibitions, reception centers, posters, Internet resources, construction material forms and sales plans to express and emphasize their claims for their products. One participant stated:

However, because there are too many construction items and competitors' advertisements, construction companies should be more careful in their claims regarding products and timing. If they are unable to focus on certain points, the effect of their claims may be diluted.

4.2.3 Promotion of construction materials. Construction companies' claims regarding construction materials are associated with their recognition and the degree to which they emphasize the quality of structures, and whether they express the concept of structural quality to house buyers. One participant stated:

To promote and convey the robustness of the houses and the reputation of the brands of construction materials, the structural quality of various houses and certain products are presented to potential house buyers at the sales centers concerned.

4.2.4 Emotional and functional features. The features of construction products can be divided into emotional and functional features. In terms of emotional features, in alliances with major suppliers, construction companies are advised to emphasize the reputation and style of suppliers' brands, in addition to telling stories about the products used to construct houses. One of the participants remarked:

We usually enhance potential house buyers' awareness of and belief in the products, and eventually increase potential house buyers' aspirations to acquire products with the construction company's brand.

4.2.5 Consistency. From the perspective of purchasers, house construction can be divided into visible and invisible stages. Buyers of completed houses can see the finished product, but they are unable to see houses in the design or construction stages, or the major materials. DM and sales centers are the two most common marketing tools of the construction companies in Taiwan. Therefore, the most important element in brand alliances between the reinforcing bar and construction industries lies in the consistency of the claims made in DM. Construction companies should confirm alliances with suppliers so that they can use suppliers' names in DM. To retain house buyers' trust in the construction companies after DM materials are published, construction companies cannot then switch suppliers. One participant stated:

Construction companies need to control the timing of agreements of cooperation with suppliers, and avoid monopolization by a single supplier. Construction companies judge suppliers at the same level, and add footnotes to DM materials stating that they will use the best brands or equivalent products.

The Main category, pull factors for house buyers, includes two attributes/factors.

4.2.6 House buyers' product knowledge. Some presold house buyers have high involvement with the products and their purchase. For example, presold house buyers will carefully compare houses built by a construction company with those of its competitors, and thoroughly calculate and assess discrepancies in the costs with those of construction projects nearby. However, house buyers are unable to select suppliers of construction materials, to assign specific brands or to purchase materials themselves. One participant stated:

However, potential buyers of houses in the presold and under-construction categories have high involvement with the products, and they not only actively ask for and place great emphasis on information about the materials, but also actively seek to understand the main products.

4.2.7 Trust in the construction companies' integration. House buyers have no choice but to trust in materials purchased by construction companies, and can only passively accept the brands selected.

The Main category, quality control during construction, includes one attribute/factor.

4.2.8 Assessment items on structural quality. Assessment of the structural quality of houses relies on factors such as design, materials and construction; as for structural design, assessment items include robustness, interlayer inflection and slope deflection, but house buyers still assess structural design based on the reputation of architectural brands. Major materials that concern house buyers include reinforcing bars, concrete and other subordinate materials. One of the participants expressed the following view:

Some events not only attract house buyers' attention, but also enhance construction quality or even result in changes to national regulations, such as the discovery of chloride in sea-sand houses and occurrences of radioactive contamination of rebars in building.

The Main category, supply chains of construction companies, includes one attribute/factor.

4.2.9 Selection of suppliers by construction companies. Construction companies value stable suppliers, prioritize existing suppliers and manage them according to the same corporate concepts that they apply in their own companies. A construction company's attitude toward its suppliers can be judged by whether it provides continuing custom to its suppliers and by the frequency with which the company changes suppliers. A monopoly may occur when there is only one supplier of a specific good. One of the participants stated: "Construction companies that require large amounts of products won't select a single supplier, but should choose many stable suppliers".

The Main category, construction companies' view of alliances, includes four attributes/factors.

4.2.10 Anxiety about monopolies. The key to alliances between the reinforcing bar and construction industries lies in decreasing the construction industry's anxiety about monopolies by suppliers. If allied brands can affect the sales of construction products, brand alliances can not only affect both brands, but also promote the concept of brand alliances to other construction companies in the same trade.

4.2.11 Honoring of agreements by reinforcing bar manufacturers. The difficulty in persuading construction companies to join brand alliances lies not only in the

advantages of the reinforcing bar manufacturers and their brand reputation, but also in the degree to which agreements are honored. Honoring of agreements refers to matters such as the assurance of contract prices and timeliness, stable supply, changes to the terms, duration or content of contracts, pressure from shareholders, timing of steel purchases and sellers' and buyers' leverage in negotiating steel prices.

4.2.12 Presentation of brand alliances. Once the brand alliances are established, both sides need to overcome difficulties such as fluctuations in the steel price, deposits stipulated in the contract, the way in which the alliances are presented in construction companies' materials forms and sales plans, the items disclosed in DM and length of the disclosure period in sales centers. One participant remarked:

We need to introduce such brand alliances in the packaging of the reinforcing bars, degree of discrepancy with other brands, demonstration of the production of the reinforcing bars, inspection standards of the reinforcing bars, certification of structural engineers and guarantees from professionals.

4.2.13 Resources provided by reinforcing bar manufacturers. In addition to providing general information, samples, catalogs, information on differences from other brands and professional guarantees of robustness, reinforcing bar manufacturers can also assign permanent delegates to provide services at construction companies' demonstration areas. The alliance partners can combine to show their brand alliance to potential house buyers so as to disclose discrepancies with other reinforcing bar brands.

4.3 Stage 3: enforcement of brand alliances

The third stage, enforcement of brand alliances, includes five Main categories:

- (1) advertising of industrial products (Main category 5);
- (2) ingredient branding (Main category 10);
- (3) brand alliances in the preselling category (Main category 12);
- (4) brand alliances in the selling during construction category (Main category 15);
and
- (5) brand alliances in the completed houses category (Main category 13).

The Main category, advertising of industrial products, includes two attributes/factors.

4.3.1 Advertisements for reinforcing bar manufacturers. Despite the high brand equity of domestic reinforcing bar manufacturers, their own advertising has little impact. The main reason for this is that house buyers do not purchase reinforcing bars directly, they know little about the materials and most house buyers trust the supply chains of the construction companies. One of the participants stated:

Even though house buyers know the differences between brands of reinforcing bar, they cannot choose them. Instead they depend on construction companies to purchase the materials. As a result, reinforcing bar manufacturers' advertisements has limited impact on house buyers.

4.3.2 Development of reinforcing bar manufacturer advertisements. Despite the limited effectiveness of their advertising, once reinforcing bar manufacturers ally with construction companies, they should continue to develop their products to an adequate standard to increase the benefits of the alliance. One participant commented:

They can place the ads on specific forms of transportation, like airplanes or high-speed railroad, on TV or on billboards. In this way, they can directly communicate with target customers and satisfy their demands.

The Main category, ingredient branding, includes four attributes/factors.

4.3.2 Timing of ingredient branding. Without a brand alliance with a reinforcing bar manufacturer, construction companies will not promote the brands of major materials, but merely list them as fundamental components of houses. One participant stated:

After reinforcing bar manufacturers select popular construction companies as brand alliance partners, they can take advantage of the timing of ads for the alliance, such as before the establishment of sales centers and after fulfillment of contracts with house buyers.

4.3.3 Advantages of ingredient branding. Construction companies can promote the major materials or ingredients of reinforcing bars. Promotion and recommendation by sales people can enhance recognition of fundamental or major components, as well as the brand image of reinforcing bar manufacturers. Moreover, this conveys the stability and major features of the primary materials. As one participant remarked: "Ingredient branding further enhances the effects of brand alliances, enabling house buyers to actively understand and accept the differences between different brands of construction materials".

4.3.4 Disclosure of ingredient branding. In brand alliances, construction companies disclose brands such as those of architects, mechanical and electrical companies, material suppliers, architectural products and advertising agencies. Meanwhile, to avoid concerns about overall quality, construction companies limit the number of brands disclosed, descriptions used and places where the brands are disclosed. One participant stated:

Generally speaking, construction companies disclose brands according to their contribution to the houses; if the brand alliance is undertaken as a joint venture, disclosure of reinforcing bar industry brands can provide an advantage.

4.3.5 Temporary and perpetual brand identification. In ingredient branding, the ways in which the reinforcing bar industry discloses brands are divided into temporary and perpetual brand identification. When it is adapted to construction companies' promotional materials and the themes of houses, temporary identification can be further divided into major identification and subordinate identification. Perpetual brand identification can be further divided according to time, location, effects of the disclosure of house brands and number of suppliers into perpetual major and perpetual subordinate identification. One of the participants stated:

However, the negative effect of ingredient branding and brand alliances is the attribution of blame and responsibility for risks taken by parties when problems arise with construction or materials, or when one party suffers a credit or financial crisis.

The Main category, brand alliances in the preselling category, includes two attributes/factors.

4.3.6 Method of preselling by brand alliances category. Because products in the preselling category cannot be presented to potential house buyers, the use of sales tools such as construction material forms, sales plans, DM and sales centers can be a form of brand alliance between the reinforcing bar and the construction industries. To maintain a business reputation among customers, construction companies seek to safeguard the consistency of promotional materials. According to one participant:

We usually emphasize that items presented in the promotional materials will not be changed. In addition, the reinforcing bar industry should have control of this aspect before the brand alliance is concluded.

4.3.7 Capacity of a single reinforcing bar manufacturer to honor a contract. Because they are concerned about the capacity of individual reinforcing bar manufacturers to honor contracts, construction companies generally identify many cooperating suppliers in their promotional materials. However, reinforcing bar manufacturers have the opportunity to persuade the construction companies to recognize that reinforcing bars are the major materials in the structures, and they can emphasize that their brand is the major material, the best brand or an equivalent. Alternatively, they can support the construction companies in promoting a single brand of reinforcing bar, so that they can exchange advertisements on the basis of mutually beneficial cooperation. One participant commented:

In sales centers, reinforcing bar manufacturers can help to illustrate points such as the quality of reinforcing bars, the relationship between the quality of the materials and durability of the houses, and the number of brands of reinforcing bars, so that the reputation of the reinforcing bar manufacturers and ranking of the brands can be enhanced.

The Main category, brand alliances in the selling during construction category, includes one attribute/factor.

4.3.8 Sales methods of brand alliances in the selling during construction category. In addition to promotions at sales or reception centers, alliances can place joint advertisements of brand allies on incomplete houses, or place temporary identifiable advertisements of brand allies on finished houses.

The Main category, brand alliances in the completed houses category, includes one attribute/factor.

4.3.9 Transmitting knowledge about reinforcing bars to potential house buyers. When purchasing completed houses, buyers tend to select reputable construction companies, but few construction companies list the brands of prestigious reinforcing bars as fundamental components, and most house buyers do not have sufficient knowledge about major materials. Allied reinforcing bar manufacturers and construction companies have the opportunity to engender mutual benefit and trust by transmitting knowledge about reinforcing bars to potential house buyers. One participant commented: "Brand alliances between reinforcing bar manufacturers and construction companies can increase not only price premiums but also the competitiveness of both parties".

4.4 Stage 4: assessment of brand alliances

The fourth stage, assessment of brand alliances, includes two Main categories:

- (1) choices of house buyers (Main category 9); and
- (2) house buyers' brand awareness (Main category 11).

The Main category, choices of house buyers, includes two attributes/factors.

4.4.1 Basis of house selection by potential house buyers. The bases of house selection by most potential house buyers include region and location of the houses, whether their relatives live locally, suitability for raising children and proximity to workplaces. The houses can be in communities, multistory buildings or townhouses. They can be classified according to living space, construction, the availability of public facilities, reputation of the

management companies and management costs. Before purchase, the criteria are the reputation of the cooperating banks, loan-to-value ratios and after-sales service of the construction companies. One participant clearly affirmed that: "Sources of this information are mostly the Internet and salespeople, while little information about reinforcing bars or their brands is involved in the selection process of potential house buyers".

4.4.2 Assessment of the effects of brand alliances in each category. Buyers of presold houses emphasize the locality and public facilities of the houses and the reputation of the construction company's brand. Buyers of completed houses consider the overall atmosphere of finished houses, availability and financial risks. However, they are unaware of and do not emphasize brands of invisible major materials and quality of construction. They must trust the construction companies and select reputable ones. After the brand alliances are agreed between reinforcing bar manufacturers and construction companies, these selection criteria are changed. Buyers of houses in the preselling and selling during construction categories, who have high product and purchase involvement, not only compare construction projects, but also participate in construction. Following brand alliances and joint marketing, reputation can be strengthened. In the view of one participant:

After brand alliances are agreed, components of the houses, including the structural design, materials, quality of construction, especially in relation to items that can easily be jerry-built or robustness, can affect house buyers' purchase decisions.

The Main category, house buyers' brand awareness, includes one attribute/factor.

4.4.3 Assessment of increased brand awareness among house buyers following brand alliances. House buyers obtain information about major materials and brands from the stock market and salespeople at reception centers. Their levels of product knowledge are limited by the quality of their sources. According to one participant:

However, brand alliances between the reinforcing bar and the construction industries can affect reference groups, opinion leaders, and word-of-mouth; these three form the basis for assessment of ingredient branding and joint marketing.

The outcome of this research with regard to the main operational stages of brand alliances, Main categories for each stage and factors to consider in each Main category is summarized in [Table I](#).

4.5 Brand alliances for the four operational stages in the targeted industries

The selective coding in this research revealed that brand alliances in the reinforcing bar and the construction industries have the same operational stages.

4.5.1 Selection of brand alliance partners. Reinforcing bar manufacturers expand their customer base to include all potential house buyers. In addition, they are advised to select partners with consistent brand elements and similar business concepts. Construction companies can be classified in terms of corporate resources, market segmentation, target customers, market positioning, house categories such as preselling, selling during construction and completed houses and house buyers' awareness of structural products in each category. The findings of this research are consistent with some previous literature, which reports that a firm desiring to link its brand to another brand through a brand alliance is rightly concerned about the fit between the two brands' markets, positioning and image associations ([Gammoh and Voss, 2011](#); [Park et al., 1996](#); [Simonin and Ruth, 1998](#)).

Operational stage	Main category	Factors
<i>Stage 1: Selection of brand alliance partners</i>	Main category 4 Business concepts	Attitudes toward employees Attitudes toward the structural quality of houses Attitudes toward sales categories
	Main category 3 Market segmentation	Resources of construction companies Target customers and market positioning
<i>Stage 2: Communication with brand alliance partners</i>	Main category 1 Sales categories	House selling style Price discrimination
	Main category 2 Push factors from construction companies	Product packaging Marketing tools Promotion of construction materials Emotional and functional features Consistency
	Main category 6 Pull factors for house buyers	House buyers' product knowledge Trust in the integration of construction companies
	Main category 7 Quality control during construction	Assessment items of structural quality
	Main category 8 Supply chains of construction companies	Construction companies' selection of suppliers
	Main category 14 Construction companies' view of alliances	Anxiety about monopolies Honoring contracts Presentation of brand alliances Resources provided by reinforcing bar manufacturers
<i>Stage 3: Enforcement of brand alliances</i>	Main category 5 Advertisements of industrial products	Reinforcing bar manufacturers' advertisements Development of reinforcing bar manufacturers' advertisements following brand alliances
	Main category 10 Ingredient branding of products	Timing of ingredient branding Advantages of ingredient branding Disclosure of ingredient branding Temporary and permanent brand identification
	Main category 12 Brand alliances in the preselling category	Alliance methods in the preselling category Capacity of a single reinforcing bar manufacturer to honor a contract
	Main category 15 Brand alliances in the selling during construction category	Alliance methods in the selling during construction category
	Main category 13 Brand alliances in the completed house category	Transmission of knowledge about rebars to potential house buyers
<i>Stage 4: Assessment of brand alliances</i>	Main category 9 Choices of house buyers	Bases of house selection by potential buyers Assessment of the effects of brand alliances in each category
	Main category 11 House buyers' brand awareness	Assessment of increased brand awareness among house buyers following brand alliances

Table I.
Operational stages of brand alliances in the reinforcing bar and the construction industries

4.5.2 Communication between brand alliance partners. Construction companies should help reinforcing bar manufacturers to classify levels of house buyers' awareness of products and reach consensus regarding quality control of their houses and management of suppliers. This can decrease the anxiety that the reinforcing bar industry could monopolize sources of construction materials, ensure that reinforcing bar manufacturers will honor contracts despite fluctuations in steel prices and communicate the way in which brand alliances should be presented and the resources that reinforcing bar manufacturers should provide. In previous studies, adding a well-known ingredient brand improves consumer product evaluations of unknown or well-known host brands more than the addition of an unknown brand (Fang and Mishra, 2002; Levin *et al.*, 1996). In contrast to these studies, the findings of this study include both consumer brand awareness and supplier management.

4.5.3 Enforcement of brand alliances. Construction companies' marketing communication should be integrated. Reinforcing bar manufacturers should develop their own advertisements. Corporate-level and product-level brand alliances should be disclosed. There should be either permanent major or subordinate identification or temporary major or subordinate identification. Methods of achieving brand alliances in each selling category should be enforced.

4.5.4 Assessment of brand alliances. Changes in the behavior of potential house buyers, house buyers and users of brands of the reinforcing bar or construction industries before and after brand alliances should be investigated. Moreover, the degree to which product awareness and purchase willingness of the three types of customers is enhanced following brand alliances should be probed. This information should be used as the basis for future brand alliances with other construction companies.

5. Concluding remarks

This study demonstrates current problems of intense price competition in the reinforcing bar and the construction industries. To solve this problem, this study proposes brand alliances. Unlike past consumer-based brand alliance research (Park *et al.*, 1996; Simonin and Ruth, 1998; Helmig *et al.*, 2007; Monga and Lau-Gesk, 2007), this paper takes the firm perspective. Through an interview survey approach and review of related literature on the general operations of brand alliances, this study used grounded theory method not only to identify four operational stages (core categories) of brand alliances, but also to suggest a conceptual model for the operation of brand alliances in target industries.

The four operational stages of brand alliances included 17 criteria, as follows. The first stage is selection of brand alliance partners and it includes factors such as business concepts, market segmentation, sales categories and house buyers' knowledge of structural products. The second stage is communication between brand alliance partners and it includes factors such as push factors for construction companies, pull factors for house buyers, quality control during construction, supply chains of construction companies and construction companies' views of alliances. The third stage is enforcement of brand alliances and it includes factors such as advertising of industrial products, ingredient branding of products, as well as brand alliances in the preselling category, selling during construction category and completed houses category. The fourth stage is assessment of brand alliances and it includes factors such as choices made by house buyers, and house buyers' brand awareness. These categories were

developed by exploring participants' experience from the construction industry, and linking it to previous literature on brand alliance.

The lack of firm-side research is a fundamental limitation of the extant brand alliance literature (Gammoh and Voss, 2011). To fill this gap in the literature, this study is a first attempt to provide operational stages of brand alliances, rooted in the theoretical foundation of brand alliance research from the firm side. The proposed model, consisting of multidimensional factors, provides a tentative explanation of how brand alliances are managed in the reinforcing bar and the construction industries. The proposed model was derived through the inductive method of grounded theory. Although the findings are not generalizable to all companies in the reinforcing bar and the construction industries, this study represents an initial underpinning, and develops a theory of how companies implement and operate brand alliances. However, there is a need for substantial research that could lead to a better understanding of the operation of brand alliances of firms in the reinforcing bar and construction industries. The detailed information needed comes not only from large surveys but also from longitudinal research. Longitudinal research is especially necessary, be it:

- quantitative analyses of company panels; and
- qualitative in-depth studies of specific companies.

In our opinion, in-depth and longitudinal qualitative studies seem to be critical first steps. In this study, we have shown with the proposed model that it is possible to build a basic picture of the ways in which companies implement and operate brand alliances.

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