**DISTRIBUTION CHANNELS OF MAJOR CONSTRUCTION MATERIALS**

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***Abstract***

Distribution is an important element of marketing mix which enables product to reach through distribution channels from the producer to the final consumer. Distribution channels consist from all companies involved in that process including producer, wholesale, retail, insurance companies, transport companies, banks, warehouses and key accounts, particularly those from industrial markets.

The purpose of this paper is to point out the specifics of distribution channels of major construction materials such as cement, roof tile, and bricks. Selection of the specific distribution channel significantly affects the costs, sales figures and the other elements of marketing mix. This is very important in distribution of construction materials due to the high share of transportation cost in final price and limitations based on geographical position of the producer.

The choice of appropriate distribution channel for each product is a very complex process. Final decision on the selection of distribution channels combines ideal and available distribution channels and is related to the objectives set for particular market by the company. Often companies have to accept existing conditions on the market which limits their choice in selecting distribution channel.

Practical part of this paper will cover members of main distribution channels for constructional materials which are industrial customers, resellers - retail, wholesale and government acquisitions.

**Key words:** distribution, construction materials, marketing-mix, retail, wholesale

**1. INTRODUCTION**

Distribution is a very important element of marketing mix which helps producer to deliver products and services to final consumer. Producers rarely directly deliver products to final consumers instead they are just one segment in whole distribution channel. Therefore company will conduct profitable business only if all companies involved in distribution channel are profitable. Distribution channel can also be a way of achieving advantage in relation to competition which has been used by producers of construction materials. This companies were delivering products just in time on construction site which helped their customers to cut costs of production.

Production of construction materials and this industry as a whole has a long tradition. Last several years, since the beginning of crises there has been a strong decline in this industry. The number of procured building licensees for new objects is in decline since 2009. We can say that growth and decline of demand for construction materials is in strong correlation with growth and decline of state economy.

Major construction materials are cement, bricks and roof tiles. There are significant differences between this products.

Cement is construction material which has high share of transportation costs in final price. All producers have set quality according to regulations and standards so for their customer’s major factor which determines selection of the supplier is price and distribution.

Bricks market is characterized by great number of producers which have higher capacities than market can consume. Before the crises they were exporting bricks in Bosnia and Herzegovina, Romania and Hungary. Today there is strong trend of price reduction which smaller producers cannot follow and they are mostly closing their business. Bricks are the product that is used only for new buildings so this crises severely affected this particular industry.

Roof tiles are the product which can trough wide range of products and distribution channels realize comparative advantage. This construction material is used for new buildings and also for existing buildings which are only repairing roof in 50:50 ratio. Majority of final customers comes in retail with already made final decision which roof tile will buy. The most significant factor in making that decision is combination of price and quality that is most satisfactory to final consumer.

Distribution channels for major construction materials are industrial customers (concrete producers, civil engineering and building construction, producers of other materials used in construction), resellers i.e. retail and wholesale and government acquisitions.

Data used in this paper are information collected in a survey conducted by specialized company for market research (Puls) and business data collected by producers of construction materials. Market research included resellers of construction materials in Croatia and experts such as architects and engineers. The method that has been used was face-to-face interviews.

**2. CONSTRUCTION MATERIALS**

If we look at history we can say that development of construction materials follows evolution of civilization. The oldest monuments of civil engineering are from 12000 year B.Sc. and materials used for construction were stone and clay. The oldest organized production of construction materials was bricks production in old Egypt. Bricks were made of clay, reinforced with cane and dried on sun.

It is very hard to define construction materials because there are construction materials and materials used in construction. This definition is hard to make therefore in era of industrial construction there is a large range of semifinal products based on major construction materials such as finished concrete constructions used in building process. It is not only hard to define but also to specify the division of construction materials. Therefore there is a vast number of construction materials division according to different criteria. I will mention just few of them.

According to type of basic mineral material construction materials divide on stone, cement, lime and gypsum, then sand and gravel and bricks and roof tiles (Brzaković, 2000, p.4).

According to type of construction materials production we differ materials produced by cutting, grinding, separation, stone-crushing and polishing, then materials produced by heat treatment, materials produced by hydrothermal treatment and materials produced by mixing water, aggregates and binding material (Brzaković, 2000, p.4).

As we can see no matter which criteria we use for dividing construction materials, as major or basic construction materials always are stated cement, bricks and roof tiles. Lime and gypsum are used rarely so we can say that cement is basic binding material in construction. In future lime will be used more in some other industries such as metallurgy.

**3. DISTRIBUTION CHANNELS**

Distribution is an element of marketing mix which assures change of product place as a result of sales activity. Sales implicit change of product ownership. Distribution tell us in which way product comes from producer to final consumer (Meler, 1999, p.279).

Distribution channels, or marketing channels are group of mutually depending companies included in process which will made products available for usage or consumption (Kotler, 2001, p.530). Size of distribution channel depends on type of product, producer’s economic possibility, characteristic of market segment and so on. Distribution channel consists from producer, retail and wholesale, insurance companies, transportation companies, banks, warehouses, key accounts especially from industrial market.

Members of distribution channels share specific important characteristic. Every member of distribution channel has different engagement in whole distribution system and mutual profit and success is realized only trough cooperation of all members of distribution channel while the products are delivered on the market.

Decisions regarding distribution are not more important than other marketing decisions but never the less, they significantly influence other elements of marketing mix. Making decisions about distribution channels is crucial because it defines presence of product on the market and customers’ ability to buy certain product. All these decisions have strategic importance because they usually have long term commitment. It is often easier to change price conditions than all distribution system. It is particularly emphasized on the construction materials market especially on the cement market, because there is greater share of direct distribution than distribution through resellers. Share of direct distribution to final consumer even increased when cement producers started expanding their business through vertical integration on concrete production.

It is very complex process to choose the right distribution channel for particular product. Producer must carefully evaluate potential middleman or agents going through data regarding sales figures, profits, range of products they are having on stock, customers etc.

Before producer determines specific distribution channel he must have in mind market characteristics, customer behavior, product characteristics and elements of surroundings.

When producer makes decision about distribution channel he usually makes combination between ideal and available distribution channels. It is very expensive to build retail network or increase direct distribution in some other way, mostly through vertical expansion. Existing resellers are the most common selection so producers put their effort in gaining resellers which already exist on certain market to be a part of their distribution channel.

Distribution channel selection is also determined by goals that company sets for particular market. It is important to define market in a terms of importance weather particular market is of primary or secondary importance. That decision defines usually distribution channel for particular market. Sometimes there are certain limitations that give no choice to producer regarding distribution channel. It is especially emphasized on cement market where cement producers must respect market position taken by companies involved in civil engineering and building construction.

When distribution channel is selected, that decision influence all other elements of marketing mix, sales figures and costs. It is even more significant for construction materials because of high share of transportation costs in final price. All producers of construction materials have limitations regarding distribution on distant markets because it is not profitable. Distribution on markets which are more distant from the factory location can be made only by shipping transportation and distribution centers in ports. Never the less, even that type of transportation increase costs of loading and manipulation.

The process of managing distribution channel demands continues selection and evaluation of resellers based on sales figures in previous period. As a result of that process is continues modification of distribution channels according to trends on the market and in surroundings.

Major members in distribution channels for construction materials are industrial customers (concrete producers, civil engineering, building construction and producers of other materials used in construction), resellers i.e. retail and wholesale and government acquisitions.

**3.1. Structure of distribution channels**

The number of levels in distribution channels define the length of distribution channel. Level of distribution channel is level of marketing agents or mediators which conduct certain job in process of bringing product and ownership closer to the buyer (Kotler, at al., 2006, p.860).

If there is no marketing mediators in distribution channel we consider that distribution channel to be direct one. This approach is used by producers of construction materials in case of direct distribution to industrial customers and construction companies. Share of that distribution is the largest in cement distribution and smallest in roof tile distribution.

The number of mediators in distribution channel represent the number of levels in distribution channel. As mediators we consider agents and resellers (wholesale and retail).

If we look at distribution channels according the way they are organized we differ further distribution channels:

1. Conventional distribution channel with independent participants which have individual business policy trying to gain maximal profit;
2. Vertical marketing system in which producer, wholesale and retail act as a united system. It can be corporate, contractual and administrative;
3. Horizontal marketing system in which two or more companies unite on the same level to make their businesses more profitable and
4. Hybrid marketing system in which one company develops one or more distribution channels to cover one or more market segments (Kotler, at al., 2006).

**3.2. Design of distribution channels**

It is not easy to decide what type of structure distribution channel shall have. Several factors must be taken into consideration. Design of distribution channel demands:

* Analysis of client demands
* Determination of goals and restrictions of the channel
* Establish major channel alternatives and
* Evaluation of alternative values (Kotler, at al., 2006, p.871).

Company must consider needs and desires of final consumer but always must think about level of service that is important to final consumer and price he is willing to pay.

Goals set by the company for specific market must be defined depending on product, competition, environment and service level to final consumer.

Establishing major channel alternatives includes selection of type and number of mediators in distribution channel and responsibility of each mediator. Company can use several alternatives such as direct marketing, sales force and resellers (wholesale and retail).

The number of mediators in distribution channel we also define as width of distribution channel (Kotler, at al., 2006, p.880). It can be exclusive distribution with limited number of mediators in product sales. Producer and members of distribution channel have written contract agreement which gives exclusive right to limited number of mediators to sell product on particular market. It is often used on new markets and markets with high risk in terms of payment.

Second type is selective distribution which means that producer is using more than one mediator on the market which allows producer to have certain control on distribution channel and still having satisfying presence on the market.

And the last one is intensive distribution used by producers that need to cover total market with their product and have to be present with product on large number of retail stores. Basic characteristic of this type of distribution is poor control of distribution channels.

After considering all alternatives in design of distribution channels company must select alternative which will help in achievement of long term goals set for certain market. Each alternative must be evaluated according economic criteria meaning profitability of each distribution channel. Figures that are being considered are sales figures and costs of sales by using certain distribution channel. Very important factor is control of product presence on the market.

**3.3. Industrial customers**

Industrial customers are on the markets characterized by smaller number of buyers which are mostly defined as key accounts due to the size of their business. They have specialized employees in purchasing departments and in process of selecting potential supplier large number of experts are involved. Sometimes even members of Board of Directors participate in that process. Industrial customers mostly buy directly from producers or importing companies.

Cement market is characterized by industrial customers as major buyers. When we talk about industrial customers on cement market we mean construction companies, concrete producers, producers of concrete products such as concrete pipes and producers of mortar and other products for construction. Contracts are made on long term basis (two or more years) with price adjustment during that time according to market conditions.

Industrial customers are strongly influenced by trends in state economy and investment cycles because of government investments in infrastructure.

Purchasing department in construction companies are usually centralized to get best conditions for quantities that are being purchased. Important role in purchasing process has technical department, laboratory and supervision.

Purchasing process starts with problem definition and description of general product characteristics together with requested quantities. Second step is detailed technical specification. This specification is part of inquiry which purchasing department is sending to potential suppliers. After receiving offers, all members of team make analysis and recommendation which supplier to select. Important elements are not only price but also other services such as technical support, product quality and terms of payment, supplier’s good name and even personal relations. After supplier is selected orders are made periodically depending on required quantities and that can be daily, weekly or monthly. Each and every supplier is being evaluated and graded once a year.

In purchasing process for major construction materials, especially cement, price and delivery conditions are the most important elements in process of supplier’s selection. Big producers such as Cemex have made special systems of just in time delivery on the construction site which helps their customers to make plans more accurately and also cut the costs.

This distribution channel is extremely important for cement. Bricks are distributed through this distribution channel in rather small quantities and for roof tiles industrial customers are not significant at all.

**3.4. Resellers**

Resellers market consists of all individuals and companies which buy products and services to resell them and gain profit (Kotler, at al., 2006, p.89).

Resellers must make some decisions to position themselves on the market best they can. First they have to define range of products they will keep on stock. It is very important to define whether reseller will have only construction material or all products used in construction.

When they define range of products they have to decide whether to select only one producer as supplier for certain product or to have more producers as suppliers. Resellers often have for cement and bricks only one or two producers at most, while they often have roof tiles produced by all available producers existing on the market.

Purchasing process is often in hands of the owner or in bigger wholesales, specialized purchasers. Final decision regarding supplier’s selection is made considering price, terms of delivery and payment and of course demand of final consumer.

*3.4.1. Retail*

The purpose of retail is to sell products and services to final consumers. Retail can be general and specialized and it can purchase products from producer directly or from wholesale. Retail includes all activities which means selling products and services directly to final consumer for their personal, nonbusiness needs (Kotler, 2001, p.563).

Segetlija emphasizes that retail acts as mediator in product exchange between wholesale and final consumer or producer and final consumer (Segetlija, 1990, p.15).

Buyers in retail are mostly final consumers. Sometimes buyers in retail are other companies which buy products for the purpose of their business.

By insuring range of products that suits their customers’ needs retail makes efficiency in terms of:

* Space – created through moving products from wholesaler or producer to location where final consumers are willing to buy certain product;
* Time – consists of management of working hours in relation to make products available to final consumers in time when they want them;
* Ownership – making easier transfer of ownership or usage of products for final consumers (Dibb, at al., 1995. p. 334).

Retail can purchase products from wholesale, directly from the producer or make some kind of a combination this two ways of supply. Producers of construction materials supply retail directly and through wholesale to minimize the risk of payment.

While wholesale is limited on producers and import companies in purchasing process, retail has wider choice which depends on:

* Supply quantities,
* Range of products,
* Supply costs,
* Other economic important factors (Segetlija, 1990, p.15).

Producers of construction materials often advertise together with retail stores such as price cut off actions and presentation of new products on selling point. It is commonly used when new products are introduced to the market especially one that bring new ways of building.

All research done by specialized agencies emphasize retail as distribution channel because 30% of final consumers decide in retail store which product to by.

**Table 1.** Purchasing decision in buying process of constructional materials

|  |  |  |  |
| --- | --- | --- | --- |
| Purchasing decision | Roof tiles | Bricks  | Cement  |
| Before coming in retail store | 68% | 70% | 74% |
| In the retail store  | 32% | 30% | 26% |

Source: Market research conducted by Puls and business data collected by producers of construction materials

Even 20% of all costumers makes decision according to recommendation given by employees in retail store.

**Table 2.** Source of influence on final consumer in deciding which construction material product to buy

|  |  |  |  |
| --- | --- | --- | --- |
| Source of influence | Roof tiles | Bricks  | Cement  |
| Experts  | 30% | 29% | 24% |
| Promotional activities | 12% | 12% | 8% |
| Final consumer makes decision on its own | 34% | 37% | 48% |
| Employees in retail store | 20% | 20% | 18% |
| Final consumers company | 2% | 1% | 1% |
| Others | 1% | 1% | 1% |

Source: Market research conducted by Puls and business data collected by producers of construction materials

Structure of customers in retail stores for major construction materials is shown in table 3.

**Table 3.** Structure of customers in retail for major construction materials

|  |  |  |  |
| --- | --- | --- | --- |
| Types of customers in retail  | Roof tiles | Bricks  | Cement  |
| Final consumers | 38% | 39% | 30% |
| Craftsmen  | 24% | 31% | 51% |
| Construction companies | 20% | 15% | 9% |
| Other retail or wholesale | 14% | 13% | 8% |
| Others  | 4% | 3% | 2% |

Source: Market research conducted by Puls and business data collected by producers of construction materials

*3.4.2. Wholesale*

Wholesaler is company that purchase products from producers or importing companies and resell them to retail and other companies. Wholesale does not supply final consumer which buys products in retail.

Segetlija says that wholesalers are mediators between producer on the one side and retail and key accounts on the other side. Their task is to purchase products from producers or importing companies and distribute it further to retail and key accounts (Segetlija, 1990, p.11).

 Wholesale major activities are:

1. Wholesale management,
2. Making contracts with suppliers,
3. Promotion,
4. Warehousing and product manipulation,
5. Transportation,
6. Control of products on stock and data processing,
7. Insurance,
8. Price policy,
9. Financing and budgeting,
10. Management and marketing support to their clients (Dibb, at al.,1995. p. 311).

Wholesalers has to specialize for particular range of products if they want to be successful. That should help them to optimize their purchasing process and cut the costs due to a larger quantities they purchase (Segetlija, 1990, p.15).

Wholesale is used as distribution channel for major construction materials on new markets and markets characterized by high risk of payment. Producers without their own selling force have no choice but to use wholesale to enter particular market. It can be risky because of small or even non control of selling activities on that market. Therefore most of the producers start on new markets with wholesale but work on establishing their own selling network as combination of retail, wholesale and selling force of their own.

**3.5. Government acquisitions**

Government acquisitions or procurements market consists of units – federal, state and local – which purchase products and services to produce public services or transfer products and services to one they need it (Kotler, at al., 2006, p.89).

This market is probably the most complicated one due to a very demanding procedure which has as a result slow purchasing process followed by many documents and procedures connected with control of government acquisitions. Special attention has to be taken to contracts which usually have more variants and can be changed during the contractual period.

Important factor in supplier selection on the government acquisitions is price. Sometimes there are noneconomic criteria involved such as either supplier is from within the state or from abroad.

On a construction materials market government is very important factor in segment of laws and regulations regarding product quality standards, ecology, concessions and procedures regarding construction. Very important is also total economy policy and government investments especially in roads and infrastructure.

Significant factor for construction materials are companies owned by state such as Croatian Roads and Croatian highways especially in Croatia for cement.

**4. CONCLUSION**

Development of construction materials trough history follows evolution of mankind. The oldest organized production of construction materials was bricks production in old Egypt. If we look on our region production of construction materials has long tradition.

No matter which criteria is used to classify construction materials cement, bricks and roof tiles are always stated as major or main construction materials.

Demand for construction materials is closely related to tendencies in state economy as a whole. For producers of construction materials state has very important impact also in segment of legislation regarding product quality standards, concessions, ecology and laws related to construction.

All producers try to gain better position on the market through vertical and horizontal integration processes. Vertical integration towards the concrete production and retail is a part of developing distribution channels and gaining better control over distribution. It is common on the construction materials market, especially cement, that 20% of all buyers hold 80% of total sales. Therefore investments in concrete production and retail makes sense to cut the dependence on small number of buyers.

As we saw retail is very important for construction materials producers especially bricks and roof tiles. It is important to build partnership relations and also by strong promotional activities create demand for particular products.

Wholesale is used on new markets at the beginning and on markets with high risk of payment. All producers try to reinforce their presence on the market with sales force of they own.

Last crises which is still present on the construction market, showed that companies with larger range and control of distribution channels easier handled difficulties. Therefore producers of major construction materials should invest in distribution channels especially retail for bricks and roof tiles and industrial producers for cement.

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