

# Application of SPACE Matrix

Case Study: Mahde Beton Concrete Construction Company

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## Abstract

One of the most important questions for concrete construction firms managers is that what the current status of their concrete construction firm is. This paper presents the application of strategic position and action evaluation matrix (Space Analysis) to find the answer of this question for a concrete construction the best degree of strategy managing to execute four strategies against the rivals, namely aggressive, conservative, defensive and competitive strategies. Value of each factor mentioned in this matrix, were earned by preparing questionnaire surveys. These factors were listed in four groups (Financial Strength, Industry Attractiveness, Environmental Stability and Competitive Advantage) to identify which kind of strategy should be used by this firm.

**Key words:** Strategy, Space Analysis, aggressive, conservative, defensive and competitive strategies

## 1. Introduction

Today, the most important concern of most of the organizations is formulating the strategies their success is guaranteed in complex environmental changes. Strategic planning provides some tools for the organizations to follow the formulation of the strategy in various aspects of the organization and manage their strategic performance [11]. Now, strategic management is widely applied in various levels of business.

Strategic management is considered as the set of decisions and operations that are applied by managers for all the organization levels. This is the set of decisions that can lead into long-term activities of the organization [12]. In other words, the general point of strategic management is that the managers need to know what factors are used to improve the organization condition for the success of the performance in the future [1].

## 2. The significance of the study

Strategy models provide a common focus point for discussion. The best strategies come of from the insight of applying the strategy tools and the discussions that happen within the management team and not as a direct result of using the planning model. Strategy models provide a common reference point. You can see a set of conditions or even a particular symptom and you can relate it back to the rest of the strategy model to understand more about what is happening at the moment, what is happening and perhaps what will happen [3].

## 3. Research question

The most important thing in this article tries to answer how we can determine their position in the competitive environment To find a rational strategy based on. The method used in this article is Strategic Position and Action Evaluation Matrix In that way it is described in detail.

## 4. Theoretical base

### 4.1. SPACE Analysis – Strategic Position and Action Evaluation Matrix

The **Strategic Position and Action Evaluation Matrix** or **SPACE analysis matrix** is a super technique for evaluating the sense and wisdom in a particular strategic plan. It was developed by strategy academics Alan Rowe, Richard Mason, Karl Dickel, Richard Mann and Robert Mockler. The Strategic Position and Action Evaluation (SPACE) analysis framework is a very useful but not well known tool to develop and review a company's strategy : [3]

It can be used at

- The beginning of the exercise to predict the overall key themes
- As a check at the end of the process.
- It can also be used to evaluate individual strategic options generated by using a tool like the Ansoff Growth Matrix.

SPACE Analysis is a systematic appraisal of four key issues that balance the external and internal factors that should determine the general theme of the strategy:

External

- Industry Attractiveness

- Environmental Stability

Internal

- Competitive Advantage
- Financial Strength

By combining ratings on each dimension on one SPACE matrix diagram, the framework guides the strategic agenda.

The dimensions are combined in a way that seems strange at first but makes sense because two sets of factors are assessed as strengths (financial strength and industry strength) and rated positive while the other two (competitive advantage and environmental stability) are assessed as potential weaknesses and rated negatively. The logic is that financial strength is needed to compensate for environmental instability. The more difficult the future environment is thought to be, the more important it is to have strong financials. [8]

Industry attractiveness and competitive advantage are seen as potentially alternative sources of superior profit, and indeed there are treated as such in my five pathways to profit in my Profit Tipping Point report. If both favour the business, then results should be very good, if both are unfavourable, then the business is in trouble.

#### **4.2. Assessing the SPACE Analysis Scores**

Each factor in the Strategic Position and Action Evaluation matrix can be quickly judged but there are benefits for exploring each in detail. There are a large number of factors that can be considered and each industry will have its own key features which should be included in the detailed SPACE evaluation. A few factors to be considered to give you a flavour of what to include in your SPACE analysis are listed below.

#### **4.3. SPACE Analysis Factors For Financial Strength**

1. Return on Sales
2. Return on Assets
3. Cash Flow
4. Gearing
5. Working Capital Intensity

The factors for Financial Strength are marked from 1 to 6 and a high score is good, a low score indicates financial weakness.: [3]

- Return on investment (low to high)
- Leverage (debt to equity ratio) (imbalanced to balanced)
- Liquidity (access to quick money when needed) (imbalanced to solid)
- Capital required versus capital available) (high to low)
- Cash flow (low to high)
- Ease of exit from market (difficult to easy)
- Risk involved in the business (much to little)
- Inventory turnover (slow to fast)
- Use of economies of scale and experience (low to high)

#### **4.3.1. Interpreting Financial Strength In The SPACE Matrix To Your Situation**

High profit margins and access to cash to invest when you want it are valuable in any business.

Several of the financial measures are not black and white: [15]

1. Leverage ranges from imbalanced (bad) to balanced (good) on the basis that equity finance is more expensive than moderate levels of debt so the business should aim for the lowest weighted average cost of capital
2. Liquidity also ranges from imbalanced (bad) to balanced (good) because high levels of cash will depress returns on investment while liquidity problems will mean the business struggles to pay creditors as they fall due and may mean the business is technically insolvent.

Businesses have different financial needs in terms of:

- asset intensity – some businesses need large investments in capital equipment
- working capital cycles – a supermarket will be paid in cash by customers well before it has to pay its suppliers while a distributor may have to hold high levels of stocks/inventories, finance trade debtors and even pay for imported goods before they are despatched. [26]

#### **4.3.2. The Impact On Strategic Direction For Different Levels Of Financial Strength**

Financial strength is used to offset any environmental instability on the y-axis of the SPACE matrix diagram.

A strong score on financial strength backed up with reasonable environmental stability suggests that either an aggressive strategy or conservative strategy is appropriate depending on the position for competitive advantage and industry attractiveness.

A poor score without remarkable environmental stability indicates that either a competitive strategy or defensive strategy is required.

#### **4.4. SPACE Analysis Factors For Competitive Advantage**

1. Market Share
2. Quality
3. Customer Loyalty
4. Cost Levels
5. Product Range

Competitive advantage is scored -1 (minus 1) great to -6 (minus 6) poor – for more details see Competitive Advantage In The SPACE Matrix: [3]

- Market share (small to large)
- Product quality (inferior to superior)
- Product life cycle (late to early)
- Product replacement cycle (variable to fixed)
- Customer loyalty (low to high)
- Competition's capacity utilisation (low to high)
- Technological know-how (low to high)
- Vertical integration (low to high)
- Speed of new product introductions (slow to fast)

##### **4.4.1. Interpreting Competitive Advantage In The SPACE Matrix To Your Situation**

This dimension more than any other in the SPACE matrix needs to be adapted to your business sector. The competitive advantage matrix shows that even market share isn't necessarily a strong cause of advantage in some situations.

However to best assess competitive advantage to use in the SPACE matrix, I need to look in detail at my business, my customers and competitors to see who is providing the best customer value. The following strategy techniques will help are Value chain analysis, Customer value attribute maps and Key Success Factors.

##### **4.4.2. The Impact On Strategic Direction For Different Levels Of Competitive Advantage**

The competitive advantage rating will either reinforce or counteract the rating for industry attractiveness as they are on the same axis in the SPACE matrix.

A strong rating on the Industry Attractiveness / Competitive Advantage axis points to an aggressive strategy or a competitive strategy. A weak rating indicates that a Conservative strategy or defensive strategy is appropriate.

#### **4.5. SPACE Analysis Factors For Industry Attractiveness**

1. Growth Potential
2. Life Cycle Stage
3. Entry Barriers
4. Customer Power
5. Substitutes

Industry attractiveness is scored 6 great and 1 poor in the SPACE analysis matrix – for more details see Industry Attractiveness In The SPACE Matrix: [3]

- Growth potential (low to high)
- Profit potential (low to high)
- Financial stability (low to high)
- Technological know-how (simple to complex)
- Resource utilisation (inefficient to efficient)
- Capital intensity (low to high)
- Ease of entry into the market (easy to difficult)
- Productivity; capacity utilisation (low to high)
- Manufacturer's bargaining power (low to high)

##### **4.5.1. Interpreting Industry Attractiveness In The SPACE Matrix To Your Situation**

The Five Forces model created by Michael Porter should be considered to see if there are additional attributes which need to be considered for your particular situation. we'd be looking to include some measure for competitive rivalry but we've seen good industries destroyed by kamikaze competition based on price wars. we'd also want to look at the ability of customers to exercise their bargaining power to squeeze the profits. [7]

##### **4.5.2. The Impact On Strategic Direction For Different Levels Industry Attractiveness**

A strong rating on the Industry Attractiveness / Competitive Advantage axis points to an aggressive strategy or a competitive strategy. A weak rating indicates that a Conservative strategy or defensive strategy is appropriate. [9]

#### 4.6. SPACE Analysis Factors For Environmental Stability

1. Political Uncertainty
2. Interest Rates
3. Technology
4. Cyclical
5. Environmental Issues

Environmental stability is scored –1 (minus 1) great to –6 (minus 6) poor – for more details see Environmental Stability In The SPACE Matrix: [3]

- Technological changes (High to Low)
- Rate of inflation(High to Low)
- Demand variability (much to little)
- Barriers to entry into market (much to little)
- Competitive pressure/rivalry (much to little)
- Price range of competing products (narrow to wide)

##### 4.6.1. Interpreting Industry Attractiveness In The SPACE Matrix To Your Situation

Environmental stability is offset by Financial Strength on the y-axis of the traditional SPACE matrix. [7]

##### 4.6.2. The Impact On Strategic Direction For Different Levels Industry Attractiveness

A strong score backed up with reasonable financial strength suggests that either an aggressive strategy or conservative strategy is appropriate. A poor score without remarkable financial strength indicates that either a competitive strategy or defensive strategy is required. [9]

#### 4.7. Interpreting the SPACE Analysis Matrix Diagram

The Strategic Position and Action Evaluation Matrix (SPACE Matrix) is a useful guide to help you to decide which strategy is most appropriate in which situation.

The SPACE Matrix assesses the business across four dimensions

- Industry Attractiveness
- Environmental Stability
- Competitive Advantage
- Financial Strength

to come to a recommended strategic thrust which can be:

- **Aggressive Strategy**
- **Competitive Strategy**
- **Conservative Strategy**
- **Defensive Strategy**

#### 4.8. Aggressive Strategy

The Figure 1 favourable positions in all four dimensions and therefore the business can follow an aggressive strategy as it leverages its strengths into the opportunities available [3]

SPACE Analysis recommends that businesses in such a strong position take the following actions:

- Continue to invest in innovation to sustain and build the competitive advantage which exists.
- Cover any moves made by competitors to develop alternative competitive advantages. Close off the opportunities to build a differentiated value proposition that may prove attractive to segments of the market.
- Aggressively build market share by moving above the fair value line in the customer value map. [18]
- Raise the stakes for other competitors to play the game. This may be through rapid product innovations, marketing campaigns or reducing prices to levels that competitors find difficult to match.
- Grow within the market through acquisitions.
- Follow up on possible opportunities in the market including backward or forward vertical integration. [11]
- Move into related markets which complement the existing position.

This aggressive, offensive strategy will make it tough for competitors to trade and certainly difficult to build up the resources to challenge for market leadership unless they have very deep pockets.

The two big concerns in this very favourable position are:

1. Avoid complacency – business can seem also too easy but new threats may come from substitute markets or as technology makes different sectors converge.
2. Avoid running foul of anti-competition policies. Sometimes a business that is too strong can attract the attention of regulators and especially if it uses predatory pricing aimed at driving competitors out of business. [10]

#### 4.9. Competitive Strategy

The competitive strategy approach is recommended when the business scores well on the Industry Attractiveness / Competitive Advantage (IA/CA) axis of the SPACE matrix but unfavourably on the Financial Strength / Environmental Stability (FS/ES) axis. The high IA/CA score can be when: [3]

- The industry is considered attractive and the company has competitive advantages over its rivals (a very strong position).
- The industry is considered attractive and the business is neutral on competitive advantage.
- The industry is reasonable but the business has a strong competitive advantage. [17]

The low FS/ES score can be when:

- The environment is unstable and the company is weak financially.
- The environment is considered to be unstable and the business has modest financial resources.
- The business is weak financially but environmental stability is reasonable. [18]

The key strategic imperative is to acquire financial strength to compensate for the environmental instability so that the business can then follow an aggressive strategy. The business needs to split its attention between strengthening the balance sheet and improving the underlying profitability of its sales. To strengthen the balance and to provide the funds for expansion, it can:

- Raise extra share capital or even long term loans. A private business can turn to private equity in terms of business angels or venture capital firms to provide cash although this will dilute the interest of the current shareholders.
- Merge with a cash rich company who is looking for opportunities to expand.
- Form alliances to gain access to tangible and intangible assets without having to incur high investment costs.
- Improving profitability will also lead to strengthening the balance sheet provided the gains aren't withdrawn by the owners. This will take time to build up cash and equity. [2]

To improve profitability of the business and take advantage of its strong combined position on the industry attractiveness / competitive advantage axis, the business should:

- Reduce its fixed and variable costs provided it doesn't damage the competitive advantage. Innovate to improve productivity.
- Emphasise the differentiation competitive advantages, make sure they are communicated well to the market and increase prices to improve margins. This action will depend on where the business is on the customer value map.
- Expand into new markets and products where the business is confident it will be profitable see the Ansoff Growth matrix. [15]

#### 4.10. Conservative Strategy

The business is trapped into a weak position in an unexciting market – this is the dog position in the Growth Share Matrix characterised by low market share and low (perhaps negative) market growth. The company has a choice: [3]

1. To improve its current competitive position by developing competitive advantages or focusing on the more attractive niches of the overall market.
2. Looking outside the current market for profitable opportunities, either building on existing resources and capabilities or diversifying into a new area.

Combined the individual assessments are negative but this may be:

- IA and CA are both weak
- IA is OK but CA is weak
- IA is weak but CA is OK

If the industry looks bad and the business has significant competitive advantages, then any remaining profitability is under major threat and the business can become a cash drain which will reduce financial strength to diversify elsewhere.

The business should look to trim costs and any loss making customers and products wherever it can to buy more time to find attractive diversification opportunities. It should also cut back on capacity so that it shrinks to fit the future market expectations.

Otherwise the business may be able to improve its position through a determined strategy to improve its competitive advantages. Businesses new to strategic management and customer value strategies may find they can make major gains through focused action and even find overlooked assets and opportunities. The business should be careful it doesn't over-invest since upside is weak because the market isn't considered to be attractive. The business may identify niches where it does have advantages or can quickly develop advantages that are not appreciated in the wider market.

The nice thing about the conservative strategy in the SPACE matrix is that the business is not under major threats from the environment and because of its financial strength, it has time to consider its options.

#### **4.11. Defensive Strategy**

A defensive strategy is recommended by SPACE analysis when: [3]

1. The Industry Attractiveness / Competitive Advantage axis is negative; and
2. The Financial Strength / Environmental Stability axis is also negative

A defensive strategy doesn't have to come out of weakness but from strength. Sometimes maintaining the status quo suits a market leader or someone who is operating under a high price umbrella of a market leader because profits are high and life is easy. This can be dangerous since the industry is inviting an aggressive move by a new entrant to the market but sometimes "a bird in the hand is better than two in the bush." Markets are very comfortable when competitors co-exist in their own little spaces and don't threaten each other beyond localised skirmishes on the borders. I've known plenty of business owners who don't want to grow their businesses significantly. they don't have the desire to manage a big business. [9]

Different defensive strategy options apply in different parts of the business:

##### **4.11.1. Defensive Marketing Strategy**

First be clear on which product-markets you want to defend, which you want to grow and which you will allow to be taken from you without a serious fight.

The growth-share matrix from the Boston Consulting Group may help as it looks across the market growth rates and your market share to create four categories: [7]

- Stars – growing market, high share / to grow aggressively
- Cash cows – stable or shrinking market, high share / to defend strongly – these are your main source of profit and cash
- Question marks – growing market, low market share/ live up to their names.
- Dogs – stable or shrinking market, low market share/ to harvest i.e. to let your market share drift away as you manage for short term cash and profit.

## **5. Methodology**

The current study is applied in terms of the type of goal and is descriptive and case study in terms of data collection and data processing. The most important source in this study is the existing documents in various sections of the organization as human resources, market research, financial, marketing, production and quality and in data collection, additional data are used in terms of the views of local and international managers and experts and research scientific centers.

In this paper, 34 the number of managers and professionals people have responded to the questionnaire and by Using Strategic Position and Action Evaluation Matrix, we define company's position. This study is the use of average weights.

## **6. Analysis of the results**

According to The tables obtained from the Strategic Position and Action Evaluation Matrix, Mahde Beton Concrete Construction Company centers in the SPACE matrix is placed in the position of offensive strategy and According to what was said earlier about organizations that are in the position offers an aggressive strategy to Mahde Concrete Concrete Construction Company for research in the following.

### **6.1. Offensive Strategy As A Frontal Attack**

In a frontal attack you would target a competitor in the area of its strengths. In the customer matrix you target the same basic value proposition using either a lower price or a large-scale marketing campaign. If you win it's through brute force, not subtly. The competitor immediately knows that it is under attack and is likely to respond vigorously. This makes frontal attacks very risky and often expensive. The targeted competitor may well have the advantages of a low cost position and strong, committed relationships with customers.

A frontal attack is only a viable offensive strategy if:

- The market is commoditised with few little differentiation and standard customer needs.
- The brand equity and customer loyalty for the targeted competitor is low.
- The targeted competitor has few financial resources (or strong allies) relative to the financial strength of the attacker.

### **6.2. Offensive Strategy As A Flanking Attack**

Instead of attacking a competitor where it is strong in a frontal attack, a flanking attack looks for weaknesses in the competitors product range and attacks there instead.



In the customer value map, the competitor may be attracting business it is the best option without being a close fit with the needs of the market segment. This makes it vulnerable to a flanking attack from a competitor who produces a differentiated product targeted at a specific niche. While the competitor will be aware of the aggressive competitive move, it may not be particularly concerned if little volume is looked threatened. It may decide that the size of the market is not worth the fight providing its core market position is not threatened.

### 6.3. Offensive Strategy As Encirclement

In the encirclement offensive strategy, the targeted competitor is attacked from two or more directions at once to confuse the response.

For example on the customer value map, the aggressive competitor could launch three new products:

1. At the same value point as the incumbent but without the aggression involved in the frontal attack.
2. Below the value point to attract price switchers who don't appreciate everything that the incumbent offers.
3. Above the value point to attract customer segments who feel under-served by the incumbent and who are willing to pay a premium price.

The company that is attacked has to deal with three threats at once and if it cuts price to fight off the low priced offering, it risks the price reduction spilling over into the other customer segments.

### 6.4. Offensive Strategy As A Bypass Attack

In this version of offensive strategy, the aggressive competitor does not go head-to-head against the incumbent competitor but instead targets areas where it isn't. While this isn't a direct attack, it can be thought of as a pre-emptive strike into new markets and new complementary products and is likely to be targeting the incumbent's own offensive strategies. [3]

Another proposed strategy for the company include: Penetrate in the market, Market extension, Product extension, upward and downward Vertical integration, Homogeneous variety, Non-homogeneous variety, Horizontal variety, .....[4].

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**. Figure & Table**

Table 1 : Dimensions & Strategies in SPACE Matrix with Details				
Defensive	Conservative	Competitive	Aggressive	Strategy Postures
				Dimension
Unstable	Stable	Unstable	Stable	Environment
Unattractive	Unattractive	Attractive	Attractive	Industry
Weak	Weak	Strong	Strong	Competitiveness
Weak	High	Weak	High	Financial strength
* Rationalization * Divestment as appropriate	* Cost reduction and product/ service rationalization * Invest in search for new products/ opportunities	* Cost reduction, productivity improvement, raising more capital to follow opportunities and strengthen competitiveness Possibly merge less competitive cashrich organisation	* Growth possibly by acquisition * Investment on opportunities * Innovate to sustain competitive advantage	Appropriate Strategies

Table 2 : Factors Determining Financial Strength									
1. Return on investment	high	6	5	4	3	2	1	0	low
2. Leverage (debt to equity ratio)	balanced	6	5	4	3	2	1	0	inbalanced
3. Liquidity	solid	6	5	4	3	2	1	0	inbalanced
4. Capital required versus capital available	low	6	5	4	3	2	1	0	high
5. Cash flow	high	6	5	4	3	2	1	0	low
6. Ease of exit from market	easy	6	5	4	3	2	1	0	difficult
7. Risk involved in the business	little	6	5	4	3	2	1	0	much
8. Inventory turnover	fast	6	5	4	3	2	1	0	slow
9. Use of economies of scale and experience	high	6	5	4	3	2	1	0	low
		$\frac{32}{9} = 3.56$							



Table 3: Factors Determining Competitive Advantage									
1. Market share	large	6	5	4	3	2	1	0	small
2. Product quality	superior	6	5	4	3	2	1	0	inferior
3. Product life cycle	early	6	5	4	3	2	1	0	late
4. Product replacement cycle	fixed	6	5	4	3	2	1	0	variable
5. Customer loyalty	high	6	5	4	3	2	1	0	low
6. Competition's capacity utilisation	high	6	5	4	3	2	1	0	low
7. Technological know-how	high	6	5	4	3	2	1	0	low
8. Vertical integration	high	6	5	4	3	2	1	0	low
9. Speed of new product introductions	fast	6	5	4	3	2	1	0	slow
		$\frac{32}{9} = 3.56 = -2.44$							

Table 4: Factors Determining Industry Attractiveness									
1. Growth potential	high	6	5	4	3	2	1	0	low
2. Profit potential	high	6	5	4	3	2	1	0	low
3. Financial stability	high	6	5	4	3	2	1	0	low
4. Technological know-how	complex	6	5	4	3	2	1	0	simple
5. Resource utilisation	efficient	6	5	4	3	2	1	0	inefficient
6. Capital intensity	high	6	5	4	3	2	1	0	low
7. Ease of entry into the market	difficult	6	5	4	3	2	1	0	easy
8. Productivity; capacity utilisation	high	6	5	4	3	2	1	0	low
9. Manufacturer's bargaining power	high	6	5	4	3	2	1	0	low
Average		$\frac{36}{9} = 4$							

Table 5 : Factors Determining Environmental Stability									
1. Technological changes	Low	6	5	4	3	2	1	0	High
2. Rate of inflation	Low	6	5	4	3	2	1	0	High
3. Demand variability (much to little)	Low	6	5	4	3	2	1	0	High
4. Barriers to entry into market (to)	much	6	5	4	3	2	1	0	little
5. Competitive pressure/rivalry (to)	Low	6	5	4	3	2	1	0	High
6. Price range of competing products (to)	narrow	6	5	4	3	2	1	0	wide
Average		$\frac{18}{6} = 3 = -3$							

Figure 1: Matrix SPACE

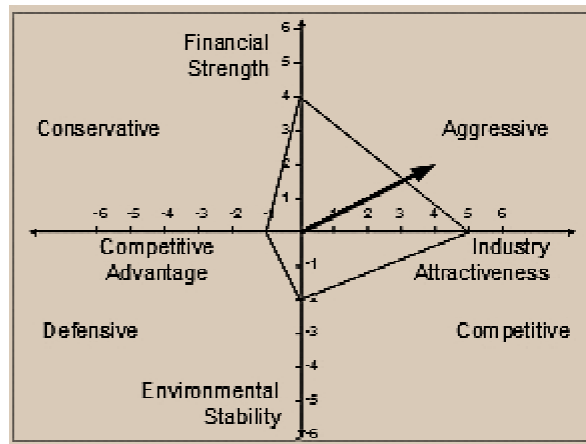
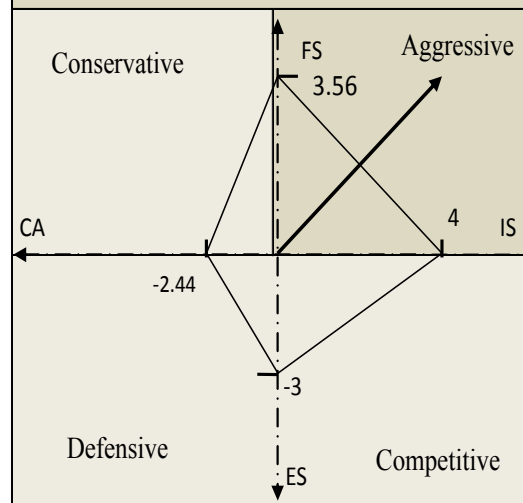


Figure 2 : Matrix SPACE for Mahde Beton Concrete Construction Firm



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