

# BCG Rule Of Three And Four

## Idea In Short

In the mid 70's Bruce Henderson (BCG founder) hypothesized that a stable competitive industry will have no more than three substantive competitors, and will find equilibrium when their respective market shares are 4:2:1. The hypothesis was never tested until recently when the BCG Strategy Institute tested it as part of BCG's 50<sup>th</sup> anniversary program. BCG Institute found that:

- The most common industry structure was a three generalist It prevailed in 13 of the 34 years studied, and was the 2<sup>nd</sup> most common in 20 of the 34 years
- Industries with a three generalist configuration produced a return on assets a full 2.5% higher than those with more than three generalists
- In three generalist configurations, the largest player typically had 1.5-2.5x the market share of their nearest rival – relatively close to Henderson's original 4:2:1 hypothesis.

The Rule of Three and Four offer patterns and insights for strategic thinking. As markets mature there is an inevitability of market players consolidating into 2-4 major players. There is usually a large gap between the major players and the rest. This is presumably part of what sat behind GE's famous '#1 or #2 or exit'. And given market share growth is generally limited, major changes in market share or industry leader tables are unlikely in mature markets, except under conditions of disruption or deregulation.

In collaboration with academics from various universities, the BCG Strategy Institute studied industry data from more than 10,000 companies dating back to 1975 to test Henderson's Rule of Three and Four hypothesis. Their analysis confirmed the validity of the Rule of Three and Four Hypothesis. The hypothesis perfectly describes the industry share structures. Furthermore, the hypothesis has remained a reliable predictor of industry structures' evolution in stable, competitive industries over decades. This study also confirmed that the ratio of 4:2:1 industry share is the most dominant among industries led by three generalists.

For corporate decision-makers, the rule of three and four has important implications. Corporate leaders must identify whether their business has a long-standing position in the market. The position of the largest competitor in the industry is the most sought after and desirable position of all. The number 2 and 3 positions are also maintainable. However, any other position in the industry is likely to be unsustainable. Once the decision makers have determined their companies' positions in their industries, they should accordingly forge the pertinent strategies. If their company falls among the top-three competitors, then they should aggressively defend their market shares and possibly grow it. If their business is not among the top-three in the industry, they should try to enhance their position by shifting the competitive landscape, through consolidation or even exit the industry (divestment). However, if the company operates in a setting where the rule of three and four does not apply, it should use adaptive strategies.

## Origins

Bruce Henderson, the founder of BCG, in 1976, put forth an interesting hypothesis about the evolution of industry and leadership. He propounded that an industry which is stable and competitive will never have more than three significant competitors and that the industry structure will find equilibrium when the market shares of the three companies reach a ratio of approximately 4:2:1. A stable competitive market never has more than three significant competitors, the largest of which has no more than four times the market share of the smallest. The conditions that create this rule are:

- A market share ratio of 2:1 between any two competitors seems to be the equilibrium point. At this point, it is neither practical nor advantageous for either competitor to increase or decrease its share. This observation is empirical
- Any competitor which has less than one quarter the share of the largest competitor cannot be considered as an effective competitor. Though this is also empirical, it is quite predictable from the experience curve relationships

## The Rule

Characteristically, this should eventually lead to a market share ranking of each competitor one half that of the next larger competitor with the smallest no less than one quarter the largest. Mathematically, it is impossible to meet both conditions with more than three competitors. The underlying logic is straightforward. Cost is a function of market share as a

result of the experience curve effect. If two competitors have nearly equal shares, the one who increases relative share gains both volume and cost differential. The potential gain is high compared to the cost. For the leader, the opportunity diminishes as the share difference widens. A price reduction costs more and the potential gain is less. The 2 to 1 limit is approximate, but it seems to fit. Yet, when any two competitors actively compete, the most probable casualty is likely to be the weakest competitor in the arena. That, logically and typically, is the low share competitor. The market share of top 3 competitors tends to be in the ratio 4:2:1. Generally, all other competitors beyond top 3 will hold between 0% to 10% of the total market share. The limiting share ratio of 4 to 1 is also approximate, but seems to fit. If it is exceeded, then the probable cost differential produces very large profits for the leader at breakeven prices for the low share competitor. That differential, predicted by the experience curve, is enough to discourage further reinvestment and efforts to compete by the low share competitor unless the leader is willing to lose share by holding a price umbrella.

## **Exceptions to the rule**

A leadership position in a given industry sector can be achieved by a low share competitor who can dominate the position cost-wise if:

1. There is an adequate shared experience between that sector of industry and the rest of the industry, and the company is the leader in the rest of the industry, or
2. An otherwise successful company is enthusiastic to continually invest in a marginal minor product or service. This may be instigated by accounting averaging, mismanagement or full line policy

## **Case study - US Car rental industry**

First, an understanding of the industry environment is critical. Is the industry one in which classical "rules" of strategy, such as the rule of three and four, apply, or does it demand an alternative—for example, an adaptive—approach? Accordingly, we see the rule is applicable on US Car rental industry which satisfies preconditions for applicability of this rule i.e. stable and competitive industries characterized by low turbulence and limited regulator intervention. Next, decision makers must determine whether their company has a long-term viable position in its industry. Where the rule applies, this is largely determined by market share. In 2006, four competitors—Avis, Enterprise Holdings, Hertz, and Vanguard Car

Rental—had market shares exceeding 10 percent. The March 2007 acquisition of Vanguard by Enterprise, however, gave the latter nearly half the market—and set in motion competitive dynamics implicit in the rule of three and four. In 2011, the three market leaders—Enterprise, Hertz, and Avis—had market shares of 48 percent, 22 percent, and 14 percent, respectively. Being the industry's largest player is the most desirable position; the number two and three spots are also sustainable. Any other position is likely to be unsustainable. Once Hertz understood their company's position, it shaped its strategies accordingly. Hertz's acquired Dollar Thrifty in 2012, which held a 3 percent market share at the time, which led to Hertz controlling approx. 25 percent market share and aligning closely with Henderson's ratio of 4:2:1. If the company is a top-three player, it should aggressively defend its share. However, if it is outside the top three, it should attempt to improve its position through consolidation as Hertz did or by shifting the basis of competition—or it should exit the industry.

## **For decision-makers**

For the corporate decision makers, this rule has many significant implications. First, in depth understanding of the industry environment is critical and then the decision makers must determine whether their company has a long-term viable position in the industry. Accordingly, the decision makers should shape their strategies. For a company that operates in an environment where the rule of three and four is not applicable, it should employ adaptive strategies.

## **Advantages**

The Rule of Three and Four is a hypothesis. It is not subject to rigorous proof. It does seem to empirically match the observable facts across such industries as steam turbines, automobiles, food, etc. If even approximately true, the implications are important. The rule of three and four remains relevant more than three decades after its conception. In a business environment that is profoundly different, its implications continue to provide guidance for decision makers. This rule also works in environments where classical business strategies work. If the company operates in an environment where the rule does not apply, it should employ adaptive or shaping strategies.

## **Disadvantages**

The Rule does not seem to apply to unstable industries and industries where regulations hamper industry consolidation or genuine competition. Examples of such industries include Investment banking, Consumer electronics, IT software and services, Life insurance, and Telecommunications. The Rule of Three and Four is also not so easy to apply. It depends on the exact definition of relevant market. It requires many years to reach the equilibrium unless the leader chooses to hold his share during the high growth phase of product life. However, the rule appears to be inescapable.

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## Summary

The losers, if they try to grow at all, will have increasingly large negative cash flows. In the absence of any external control on competition (like government regulation) and large number of competitors, a shakeout is almost predictable. Those competitors who wish to survive will have to grow faster than the market in order to maintain their relative market shares. The rule of three and four is a great way to predict the future of certain industries having characteristics such as low innovation, stability and high barriers to entry, etc. But the main limitation of this rule is that it lacks predictive power explaining what sort of industries will end up following the rule and which companies within those industries will end up at the top.