

*Competence-Based Strategic Defense*

*Zeev Rotem*

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Judy Shugart  
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Carol Waller  
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# COMPETENCE-BASED STRATEGIC DEFENSE

Zeev Rotem, Tel Aviv University  
Raphael Amit, University of British Columbia

## ABSTRACT

Strategies used to defend a firm's bundle of competencies against threats to their rent-producing capacities are outlined. In addition to intelligence activities, two generic defense strategies are examined: Preservation aimed at sustaining rents and Alteration aimed at developing substitutes and making existing competencies more flexible.

## INTRODUCTION

The literature on the resource-based view of the firm focuses on creating and leveraging valuable resources, in order to achieve superior profitability (Wernerfelt, 1984; Barney, 1991; Mahoney & Pandian, 1992; Amit & Schoemaker, 1993; Peteraf, 1993; Hamel & Heene, 1994; Collis and Montgomery, 1995; Sanchez, Heene & Thomas, 1996). The sustainability of the rent-producing potential of the firm's resources is ultimately threatened by the following four market forces: **imitation, substitution, mobilization of resources and resource paralysis**. These forces may reveal themselves to the firm unexpectedly and through unusual shocks.

In this study we draw on the work on competence-based competition and on the theoretical concepts cited above, to propose the typology of Strategic Defense, within which we outline strategies for firms to defend themselves against those external shocks.

In developing the Strategic Defense construct, we draw on the industrial organization literature in competitive rivalry (Porter, 1980, 1985; MacMillan, 1988; Chen & Miller, 1994). This body of work suggests that firms constantly undertake offensive and defensive actions in their struggle for competitive advantage (Chen & MacMillan, 1992). Offensive actions are meant to improve the firm's position against its competitors (Porter, 1980); defensive actions are those taken in response to, or in anticipation of, competitors' actions. More recently, game theoretic principals have been used to sharpen the discussion of strategy formulation as considered by McMillan (1992) and Brandenburger and Nalebuff (1995). These ideas are examined within the framework of competence-based competition wherein firm competencies are the loci of competition.

There is a significant overlap between the product market-based theory of competitive rivalry and the competence-based theory of Strategic Defense articulated in this paper. However, significant differences exist between them, too -- in their objectives, strategies, intensities and potential outcomes. These result from the differences in the loci of competition. The Competitive rivalry literature uses the terminologies of either 'action - response' or 'offence - defense'; however, the focus in competence-based competition is strictly the latter, because

both responsive actions as well as preventive actions are covered by the 'defense' typology. The 'offence-defense' terminology is also symbolic of the more aggressive and potentially more damaging form of competition wherein firms' competencies, rather than their products, are the objects of rivalry.

This paper is restricted to Strategic Defense initiatives, i.e., irreversible investments meant to defend the firm's strategic assets (Amit & Schoemaker, 1993). We focus on tactics that require irreversible investments of capital, time, and human resources. The purpose of these tactics is to prevent erosion of the rent-producing capacities of the firm's bundle of competencies. Due to the uncertainty and complexity of the nature of strategic interactions, some of the investments in Strategic Defense may, ex-post, turn out to be superfluous. We also consider investments in alternative capabilities as replacements for current competencies, and investments that enhance the flexibility of current competencies.

## THEORY

### Threats to Rent-Generating Potential or Firms' Resources

Competitive forces threaten the sustainability of the rent-producing potential of a firm's resources and capabilities. These threats include the following: *imitation; substitution; mobilization of resources; and resource paralysis*.

**Imitation.** A fundamental premise of the Resource-Based theory is that resources and capabilities are heterogeneously distributed across firms in an industry. A resource must be rare among competitors if it is to produce above-normal rents (Barney, 1991; Peteraf, 1993). To sustain the competitive advantage gained by such a unique resource, its uniqueness must be preserved. In a dynamic environment, in which the loci of competition are firm competencies, any unique and rare resource is exposed to competitors' attempts at imitating it. This situation, in fact, explains the phenomena of Schumpeterian rents, i.e. short-term rents eroded by imitation.

With the investment of time and money, almost every type of asset and competence eventually can be imitated: technology; brand management; design capability; innovative promotion; relationships with customers and suppliers, etc. The more difficult it is to imitate any of the firm's capabilities, the more sustainable is the rent-producing capacity of the firm's competencies.

**Substitutes.** Substitutes for rent-producing resources reduce the resource-owner's rents. Resources are said to be substitutes for each other when another resource enables a competitor to exploit the same strategy as the original resource owner (Barney, 1991). In the product-market domain, substitute

products, which constitute one of Porter's (1980) 'five forces', reduce the attractiveness of the industry to those who are already in it.

**Resource Mobilization.** Mobilization of resources can result from an internal attack, for example when an important employee leaves the firm (a case in point is the mobilization of Lopez from GM to VW). It can also result from external causes, such as when a competitor lures an important employee away from firm. Another example of external attack is a competitor's acquisition of an important supplier. These resource mobilizations frequently happen in the most unexpected time and manner and tend to create an internal shock in the invaded organization.

**Resource Paralysis.** Direct attempts by existing and potential stakeholders in the game of business to reduce the value of the firm's resources represent another kind of threat to the rent-producing potential of a firm's strategic assets. As suggested by Brandenburger and Nalebuff (1995), attempts to change the game, change the rules of the game, change the players, and most importantly lower the value of the firm's resources must all be considered. The latter can be accomplished in various ways. The value of a retailer's assets can be reduced if its suppliers fail to deliver products on schedule and in the quantity ordered and thereby cause lost revenues as some of the retailer's shelves remain empty. Also, by purposely not producing software to run on a particular hardware platform, the complementor (the software manufacturer) can reduce the value of a firm's technological resources, as its hardware will not sell as well as it could have if the software had been compatible with the hardware. As well, a firm's reputation may be damaged through 'negative advertisement', i.e., false complaints about the quality of its products, the dissemination of rumors about corruption, illegal acts, environmental pollution, abuse, and more. Competitors may also lobby officials to enforce laws that prevent or delay the use of a resource: import barriers, standards enforcement, and environmental regulations are some examples. All of these enable the competitor to lower the demand for the firm's products. For example, the tariff the US government intended to impose on Japanese luxury cars would have decreased the demand for some of these vehicles by effectively doubling their price, and thus reducing the rent-generating potential of the quality and reputation enjoyed by Japanese car producers. Another example of resource paralysis is encouraging strikes among workers or union leaders at a firm with superior labor relations. Although we consider many of these tactics to be unethical, and perhaps illegal, we should not ignore their existence. Firms learn from experience about the potential damage of such unusual attacks, and about the need to repel them.

### Strategic Defense: The Typology

The essence of Strategic Defense is to shield the firm against the potential damage of these unusual attacks to the rent-generating potential of its assets and competencies. Strategic

Defense incorporates a narrow range of intelligence activities and a wide range of defensive tactics.

**Intelligence Activities.** Competitors (or substitutors) and complementors must, if they are to attack a firm's competencies, obtain knowledge about the existence of firm competencies and attributes thereof. Their knowledge may result from systems for gathering business intelligence, specific surveillance efforts targeted at the firm, or even mere luck (e.g. unintended revealing of data during 'small talk' with a colleague from another firm). It is in the firm's interest to make access to such knowledge more difficult, and accordingly the following three intelligence initiatives could be taken:

*Creating causal ambiguity* - creating ambiguity regarding the cause-and-effect relationships in competence creation. This intelligence action is particularly relevant to organizational capabilities, e.g. innovative capacity or short cycle time. Organizational complexity, according to the resource-based literature, is a major source of causal ambiguity (Lippman & Rumelt, 1982; Dierickx & Cool, 1989; Reed & DeFillippi, 1990; Barney, 1991). As part of Strategic Defense, *causal ambiguity* is a deliberate creation pursuant to firm policy; it is not some unintended result of organizational processes. For example, many owners of private firms prefer not to raise money on public stock markets, in order to prevent the publication of their financial reports. Many managers resist press interviews, or even participation in academic research programs, for fear of exposing inside information.

*Counter intelligence* - taking actions to prevent competitors from gathering business intelligence about the firm's resources. Many firms designate a unit (or at least a person) whose job is to prevent competitors and complementors from gathering intelligence on firm assets; they examine new employees and visitors, inspect existing employees, check outgoing mail, and attend meetings with customers and potential competitors. In some cases, they even eavesdrop on employees' telephone conversations.

*Stakeholders' intentions intelligence* - gathering intelligence about competitors' and complementors' intentions to attack directly or indirectly the rent-producing capacity of the firm's strategic assets. Such intelligence efforts are intended to enable the firm to prepare, in advance, defenses against potential attacks. Intelligence on competitors' intentions can be gathered from public information (newspapers, magazines, TV), or by initiating activities to gather private information on rivals.

**Defensive Actions: Preservation and Alteration.** We can divide all defensive actions within the Strategic Defense typology into two generic strategies: **Preservation** and **Alteration**. **Preservation** actions attempt to preserve the firm's current resources and sustain the rents they produce. **Alteration** efforts, on the other hand, are about creating alternative resources or enhancing flexibility of current resources.

**Preservation.** Preservation actions involve strengthening the firm's position and increasing its readiness against a potential attack. This preserves the rent-generating potential of the firm's bundle of competencies. The specific tactics include:

*Reducing mobility* - reducing the resource's mobility by preventing or delaying its ability and motivation to leave the firm. Many firms, for example, include a required "freezing period" in employees' contracts, and thus reduce their value outside the firm. Alternatively, firms may induce employees to stay at the firm, e.g. by granting stock options that vest over time, and thus increase the employee's opportunity cost of leaving the firm.

Firms may also induce employees to make firm-specific investments in human capital. Since employees may not be able to capitalize on these investments by offering their services to other employers, their mobility is further reduced.

*Property rights* - enforcing the firm's property rights to the resource, thereby preventing imitation. Firms register patents to defend the proprietary nature of their innovations and take legal action to enforce them, particularly in industries where innovation requires heavy investments, e.g. pharmaceuticals. Trademark protection, copyrights, and registered designs, among others, are further ways of defending property rights (Hall, 1992). For example, *Motorola* has established itself as a company that fights vigorously to defend its property rights.

*External resource acquisition* - when a resource is required by a firm but is not under its ownership, the firm may choose to acquire it to prevent opportunistic behavior by the supplier/owner of the resource. In the presence of some form of market failure, acquiring a supplier of important factors of production is one such example (Williamson, 1975; Klein, Crawford, and Alchian, 1978). Another example may be found in the retail industry: acquiring a department store building in an attractive location prevents the risk of exposure to competitors' attempts at renting the building and establishing head-on competition.

*Deterrence* - refers to a range of defensive actions aimed at impeding potential attackers from acting by signalling an uncompromising resolution to fight back. The IO literature has dealt with this type of strategy extensively, particularly in entry-deterrence situations (Tirole, 1988). The firm can deter attacks on its resource position by erecting or enhancing both mobility and entry barriers, and also by taking specific credible actions that would reduce rewards to competitors. Reward-reducing actions are common in numerous industries including the specialty chemical industry, where firms invest in excess capacity to deter entry (Lieberman, 1987). Deterrence can take many other forms, including making public declarations, signalling and initiating legal battles.

*Asset specificity* - sufficiently increasing the idiosyncrasy of assets and their uses such that they have limited or no use outside the firm. This reduces their potential value for competitors (Williamson, 1975). One example of this type of

action is to divide up, among a number of co-workers, the "know-how" encompassed within a certain organizational capability, thus limiting each employee's knowledge to a very distinct part of that capability. An illustration of this would be Michelin's segmentation of its tire production processes.

*Partial give-up* - firms may prefer to compromise and give up part of the rents produced by their resources, in order to reduce the incentive to attack and prevent an all-out confrontation. For example, the existence of credible threats of resource mobilization may force the firm to share those resource-produced rents with that resource owner, for instance, by increasing the compensation of key employees. Another example of partial give-up is a limit pricing tactic, whereby the firm gives up some of the rent from its resources through limit pricing so as to deter entry.

*Pressure on government* - Many firms use economic or political pressure on the government to help them prevent or delay an attack on their resources. In particular, monopolists or firms that have long-term contracts with the government may apply political pressure on the government to keep this asset. This pressure can take the form of lobbying, workers' strikes, demonstrations, etc. For example, firms like Intel have pressured the US government to enforce anti-dumping regulations in their fight with Japanese producers of Random Access Memory chips; another example is the Japanese automobile industry, which has worked closely with its government to protect its market share from competition by US car and truck manufacturers and suppliers of automobile spare parts.

*Preventing deployment* - preventing competitors from deploying a resource that has become mobilized or which they have imitated. This can be done by either using the market power of the firm, or by taking legal action to prevent deployment of the resource. When Lopez left GM for VW, taking with him the mid-level managers and the competence of efficient procurement, GM used legal action and political pressure on the board of VW to prevent and delay the deployment of that capability.

**Alteration.** The generic strategy of *Alteration* centers on creating alternative assets and enhancing the flexibility of a firm's strategic assets stock. The strategy is intended to reduce the effect of an unusual attack on the rent-generating capacity of the firm's resources. While *Preservation* strategy only preserves the rents of the existing resources, *Alteration* strategy has the important distinction of having potential to produce new rent for the firm. Two types of investment -- *Alternative Resources* and *Flexible Resources* -- are encompassed by *Alteration* strategy:

*Alternative resources* - the firm prepares alternative assets and competencies. For example, the firm might invest in next-generation technology which they can deploy once their current generation has been imitated. Many firms maintain a second source for important supplies, in case their primary source mobilizes; this second source may be internal or

external. The process of creating alternate competencies requires investing current cash flows and new capital infusions into competencies that create real options to generate new cash flows (see Sanchez et al., 1996).

*Flexible resources* - the firm enhances the flexibility of its competencies. Many types of assets and competencies can be made more flexible, including those in operations, engineering and management. A flexible operational competency might be a production line that can adapt to different types of products with minimal retooling. A flexible engineering competency might be the assembling of engineering teams with a wide knowledge of technologies, enabling them to switch from one technology to another (see Sanchez 1995).

Although investment in alternative resources and investment in making the firm's resources more flexible are components of the same generic strategy, they are different from each other: while 'alternative resources' refers to developing new capabilities that are not part of the firm's set of strategic assets, 'flexible resources' refers to making existing resources more adaptable to changing requirements and redeployable in new configurations.

While intelligence activities usually defend against all four types of threats, defensive actions may not. Some of them, like deterrence, defend against all threats; others, like mobility reduction and asset specificity, defend only against the threat of mobilization. Table 1 depicts the four sources of threats to the rent producing capacity of the firm's competencies, and the corresponding defensive strategies and tactics.

## CONCLUSION

Strategic Defense strategies are meant to reduce the willingness of stakeholders in the game of business to attack a firm's competencies, and to make such an attack less effective if it does occur. We have presented a typology that centers on two generic Strategic Defense approaches: *Preservation*, which is aimed at preserving the firm's rents from its existing bundle of competencies; and *Alteration*, which seeks to modify the firm's competencies by developing substitutes and making existing competencies more flexible so that they can be redeployed in different combinations. We drew on the resource-based view of the firm and competitive rivalry

Table 1  
Available Defensive Strategies and Threats They Are Defending Against

| Strategy                                | Threats   |              |              |                    |
|-----------------------------------------|-----------|--------------|--------------|--------------------|
|                                         | Imitation | Substitution | Mobilization | Resource Paralysis |
| <b>Intelligence</b>                     |           |              |              |                    |
| 1. Causal ambiguity                     | +         | +            | +            | +                  |
| 2. Counter intelligence                 | +         | +            | +            | +                  |
| 3. Competitors' intentions intelligence | +         | +            | +            | +                  |
| <b>Preservation</b>                     |           |              |              |                    |
| 4. Reducing mobility                    |           |              | +            |                    |
| 5. Property rights                      | +         |              | +            |                    |
| 6. External resource acquisition        |           |              | +            |                    |
| 7. Deterrence                           | +         | +            | +            | +                  |
| 8. Asset specificity                    |           |              | +            |                    |
| 9. Partial give-up                      | +         | +            | +            | +                  |
| 10. Pressure on the government          |           |              | +            | +                  |
| 11. Preventing deployment               | +         | +            | +            |                    |
| <b>Alteration</b>                       |           |              |              |                    |
| 12. Alternative resources               | +         | +            | +            | +                  |
| 13. Flexible resources                  | +         | +            |              | +                  |

literature in developing the underlying theory and typology. The emphasis on Preservation strategies reflects the internal inertial forces in firms, and their inadaptability to the changing environment (Hannan and Freeman 1984, Rumelt 1994). A firm's choice between the two Alteration strategies reflects these inertial forces as well. Making existing competencies more flexible, as opposed to developing substitute competencies, eliminates potential resistance by the resource owners (e.g. employees with specialty training, division managers, etc.), who may wish to protect their turf and prevent the deployment of alternative resources.

The Strategic Defense typology which was outlined extends the theoretical research on the resource-based view of the firm, by suggesting practical ways in which firms can proactively defend their bundle of competencies. This typology provides the theoretical underpinnings for a model used to predict the tendency of firms to invest in Strategic Defense initiatives. Preliminary results of empirical tests of hypotheses that are derived from the model are reported in Rotem and Amit (1995). The defense-offense approach to competence-based competition opens up a wide range of unanswered research questions, including issues in Strategic Offense such as the desired balance between investments in offensive and defensive initiatives, as well as that between such initiatives and competency creation investment.

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## ENDNOTE

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