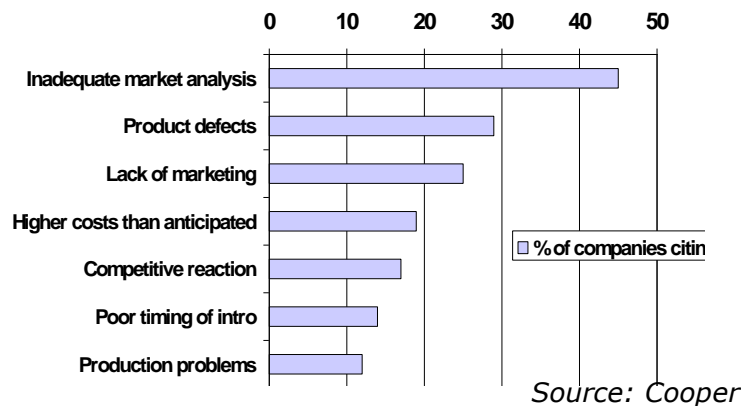


## ***KAM and Innovation***

New product development has been called the lifeblood of organisations, and research repeatedly shows that companies need to introduce new products in order to stay competitive. Yet over half the new products introduced each year into business-to-business markets fail. The situation is even worse in business-to-consumer markets, where up to 90% of all new products fail to meet their targets!

There are a number of reasons why failure rates for new product introductions are so high, including fierce market competition; the supplier misinterpreting market needs; ever-shorter product life cycles, and so on (Figure 1). Sometimes new products fail for timing reasons that are outside the control of the supplier; so, a number of good products will have failed because they just happened to be launched as the credit crunch hit business unexpectedly.

**Figure 1: Why New Products Fail**



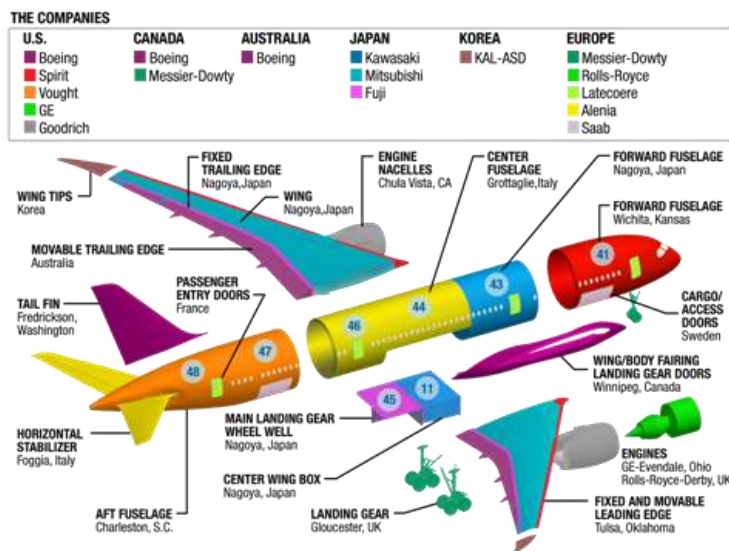
The degree to which a company is 'innovative' depends partly on the number of products it introduces each year and partly on the commercial value of those products (their commercial success). Success in new product introduction seems to be affected by the rigour that is applied at each different phase the development goes through (idea generation, development, pre-launch and sales). Innovative companies don't just have a lot of good ideas – they are also good at weeding out the bad ideas well before they get to market.

## ***The Role of Business Alliances in Innovation***

Early research on product development considered product development as an internal process and looked at internal dynamics affecting its success factors (i.e. culture, organisational structure, team building and coordination). Recently, however, with the increased emphasis on business networks and the effect of external dynamics on product development, the focus of research has shifted. Researchers have started to link the role of business networks and external alliances to product development success. This stems from a better understanding in today's business literature that firms do not act as a solo entity and a big part of their performance is the result of their interaction with the external world.

There are many ways in which external alliances influence a company's innovativeness. External allies can be the source of new information by linking the firm to new contacts. Also, external relations can help firms to spread out risks and costs, as well as helping firms to broaden their knowledge of markets and come up with more market-friendly products. Using these alliances, suppliers can raise their innovative capabilities and this is measurable through the degree of creativity, the number of new products, the success of new products, the speed of new product development (shorter time to market), and profitability. Boeing is a past master at collaborating innovatively with its suppliers. 20 key suppliers were involved in the development of the new Dreamliner (Figure 2).

**Figure 2: Boeing's Dreamliner Collaboration with 20 Key Suppliers**



## ***Which Types of External Alliances are the Most Useful for Innovation?***

Clearly, there are a broad range of allies that connect the firm to the outside world, including both formal and informal relationships. These relationships could be with key customers, suppliers, shareholders, or even competitors. But, central to all these informal and formal external relationships, are a company's relationships with its key customers. From a product development perspective, recent research has shown that customers seem to be the most influential and most associated with profit generation and market value in new product development.

Customer involvement has shown to have a positive effect on new product development. Since customers are the main users of new products their input can have a positive effect on new product development at different stages including idea generation, early product development and testing. This is particularly so in a business-to-business context, where firms are more dependent on their customers' feedback and their contribution in product development. There are particularly good opportunities where customers face problems with their existing products which in turn encourages them to discuss and share their problems and ideas for a better solution via new products.

Apart from idea generation, even in the development stage, innovative firms rely on their key customers and collaborators. Since customers are the focal point for these innovations they tend to be happy to contribute not just ideas but also technological or non-technological development such as early testing, market sensing etc.

Despite the growing emphasis on the importance of key customers' input into new products and their impact on the supplier's innovativeness, the message emerging from this line of research has been somewhat mixed. Although some researchers find that there is a positive role played by key customers that results in more innovative and successful new products, others caution that too much emphasis on one key customer's needs and wants might blind the supplier to new opportunities and trap them in an un-innovative mode. That said, on balance the best-known research (conducted by Von Hippel and colleagues) recognised the important role of customers in developing innovative products, but noted several important issues when building such relationships with customers. These issues will be considered in the next section.

## ***Customer Portfolios, Key Accounts, and Innovation***

Von Hippel's work raises the issue of the role of customer portfolios and how far firms can rely on their key customers as a positive influence on their degree of innovation. More recently, research has shown that three factors affect the number of new products:

- The size of the customer portfolio;
- The degree of resource dependence; and
- Trust

Thus, we go beyond a recognition of the role key customers may play in innovation to consider how far firms can manage their customer portfolio in a more strategic way to optimise the return on more innovative and successful new products. First, we will consider the size of the customer portfolio and whether a bigger customer portfolio is better than a more concentrated one, from an innovation standpoint. Then we will discuss resource dependence and how close relationship with a very few key customers will affect the degree of innovation, and finally we will address trust and resource dependency and explain how close-knit relations with key customers affect the innovative ability of the supplier. We close with a discussion of whether and how far a supplier can manage its resource concentration with further trust-building dynamics.

### **Size of the Customer Portfolio**

As mentioned earlier, external relationships can be either formal or informal. From a *formal* relationship perspective the existing literature indicates that the size of a firm's R&D alliance portfolio has a positive effect on innovation. The larger the portfolio, the higher the amount of knowledge exposure the supplier has. In this way a supplier will have a bigger chance to learn and consequently be innovative. Other researchers have applied this argument to *informal* customer portfolios and examined how far the size of the customer portfolio affects the degree of innovation inside firms. In both cases, the larger the customer portfolio, the broader the information exposure. This results in a larger amount of information and higher level of innovation for the supplier.

However it is important to note the limitation to this rule of thumb. As the number of customer relationships increases, it becomes more problematic for firms to optimise their key links and their contribution to product development. One reason is the increased cost associated with building and maintaining close relationships. These costs tend to mean that, in practice, suppliers focus on optimising their customer portfolio rather than expanding it. The optimal size for the portfolio is where the cost of maintaining these ties is lower than the expected benefits achieved

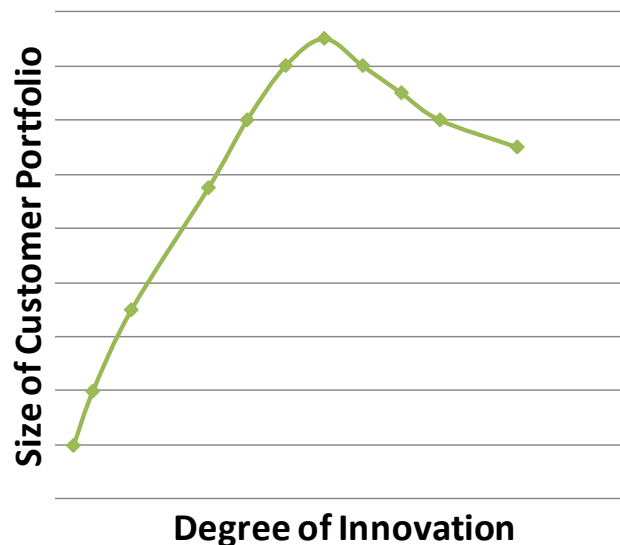
through them. By focusing on a number of selected customers, suppliers can reduce both customer search and customer acquisition costs. Thus it is important that innovative suppliers keep a close eye on the ratio of existing to new customers and the benefit of their contribution to product development.

Another factor is the degree to which the company is committed to acquiring external knowledge. What is relevant here is a company's ability to understand and value knowledge. It is always useful for a supplier to get good exposure to new knowledge to a certain extent, but not to the point where it is too expensive or managers become overwhelmed.

In summary:

*"The relationship between the size of a firm's customer portfolio and number of new products first increases with bigger size then decreases (Inverted u shape)" (Figure 3).*

**Figure 3: Revenue Concentration and Resource Dependence in the Customer Portfolio**



## Resource Dependency

Beyond size, an important characteristic of a firm's customer portfolio is the extent to which it is dependent to one or few key customers which produce the majority of the supplier's revenues. Scholars have called this type of dependence 'resource dependence' because organisations are

dependent on other players in their environment for major inputs including capital, knowledge, etc.

Resource dependence can be a major issue when dealing with key customers. It is important for a key account manager to monitor the degree of revenue concentration and resource dependence, as this can affect a supplier's ability to innovate. When firms are dependent on their parties for either know-how or for capital they are constrained, as their performance is associated with this external link. Innovative suppliers work their way around this constraint and make their external ties – in this context, their key accounts – more dependent on them. Otherwise the dominating role of key customers can hinder the flow of innovation. This could be because the supplier's focus on only a very few customers limits its exposure to new sources of information; or because a dominant key account might have needs and perceptions relating to new products which might be very different to overall market needs.

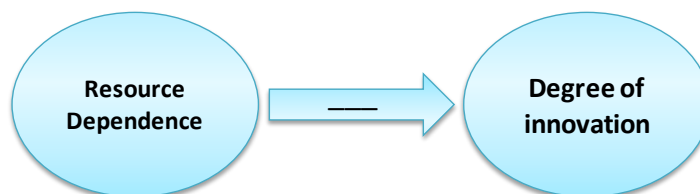
In summary:

*"Dependence on a very few key customers can hinder innovation and the number of new products developed by the supplier".*

Resource dependence puts pressure on key account managers in connection with their customer portfolio. The company has to incorporate input from all customers rather than simply depending on a very few high-revenue-generating accounts that may have specific ideas that relate only to their business. To get the all-round view, some companies include input from their second tier customers as well.

This is a tricky balancing act (Figure 4). From one perspective, companies want to have key accounts because of their high income potential but, on the other hand, it is rather discouraging from an innovation perspective as customer concentration may hinder innovation.

**Figure 4: Balancing Resource Dependence and Innovation**



This leads us to the third and very important role of relational dynamics. Scholars argue that one way for companies to tackle the revenue concentration problem is to focus on building up trust.

## Trust and Relationships with Key Accounts

Some suppliers can have key customers without necessarily having a close relationship with them, perhaps because the customers tend to behave in a transactional and not a relational way. However, from an innovation perspective, this is not the best type of relationship. When firms are highly focused on opportunistic and profit-seeking behaviour, little 'quality' knowledge is exchanged and innovation is reduced. This points to the importance of a high level of trust between the supplier and its key customers as greater trust provides an incentive, opportunity for and efficiency of, knowledge exchange.

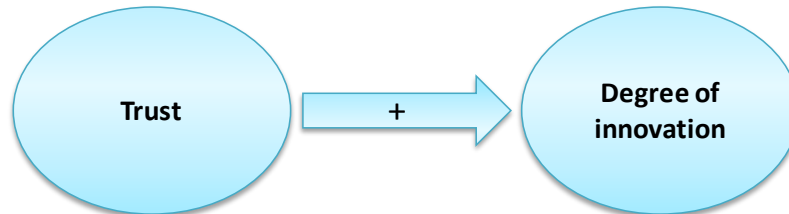
Not only trust is important to facilitate fruitful knowledge transfer from key customers and has a direct effect on innovation, but its role also compensates for negative effect of resource dependence and small portfolio size. Thus we can argue:

- Building trust increases the willingness of both exchange parties to share more information that they would disclose in a normal arm's length situation. The deeper the relationship the higher level of risk both parties are willing to put into new ideas and innovation.
- The closer a firm and its customers, the higher the intensity and frequency of information exchange. Thus, higher interaction can lead to disclosure of hitherto hidden needs by key accounts. This could result in a substantial opportunity for the supplier.
- Also, the longer the period of time in which suppliers interact with their key customers, the less time they need to put into monitoring the transferred information. If they can build trust-based relationship with their key customers, suppliers do not constantly have to monitor the incoming input. This not only reduces costs but also saves time; the result is that the supplier can produce new products more efficiently and faster.

Our summary of the effect of trust is as follows:

*"High trust between firm and its customer will increase the revenue concentration effect (share of spend) and will boost the degree of innovation of the supplier"* (Figure 5)

**Figure 5: Trust Boots Innovation**



## **Summary**

New Product Development is not a solo activity, but rather a collective process that takes place through a “network of communication” between various internal and external links. Due to growing complexity and the high costs involved, firms need to seek knowledge beyond their boundaries. Long-gone are the days when corporate R&D were the hub of innovation and creativity, and the only source of innovation was internal R&D resources. Instead, there has been a shift in focus in favour of the positive effect of market and customer feedback on product development.

More recently, scholars have taken the debate to a different level and have emphasised the importance of both the quality and the quantity of external relational links. From this new perspective, firms are located in a network of external links to their key suppliers, customers, shareholders etc. By focusing on these links as source of knowledge, firms can leverage these key relationships to their benefit and gain access to novel and relevant information that they couldn’t otherwise access.

Based on this concept of “network innovation”, innovation results from exchanges between the firm and its suppliers, assemblers and most important of all, customers. In today’s business model key customers aren’t just revenue generators, they are also a valuable source of creativity and novel ideas. Really innovative suppliers open up lines of dialogue with a number of customers that can lead to creative information and ideas exchange.

**Shahpar Abdollahi and Professor Lynette Ryals**  
**Cranfield School of Management, November 2009**