

Recipe X: The Hourglass Model

**Örjan Sölvell**  
**On Strategy**  
**& Competitiveness**

10 RECIPES FOR ANALYTICAL SUCCESS

# X The Hourglass Model

## *Ingredients*

- ✓ *Global corporations*
- ✓ *Product development and innovation*
- ✓ *Global sensing*
- ✓ *Global commercialization*
- ✓ *Home base*

Over the past couple of decades, there has been a deluge of literature dealing with cross-border product development and innovation processes in the multinational corporation (MNC). Mainstream literature has argued that geographically dispersed innovation activities now allow global firms to tap into leading clusters in every corner of the world and leverage internal resources and capabilities on a global scale, resulting in unique advantages from multinationality, which local firms find difficult to duplicate. However, our experience from talking to managers of MNCs, and through our research in the field, is that product development processes within MNCs encompass many more facets than just their global nature (see also Recipe IX).

First, to engage in global product development can mean many different things. Are strategic resources and capabilities spread all over the globe? Are they linked in any important ways? And if so, in what

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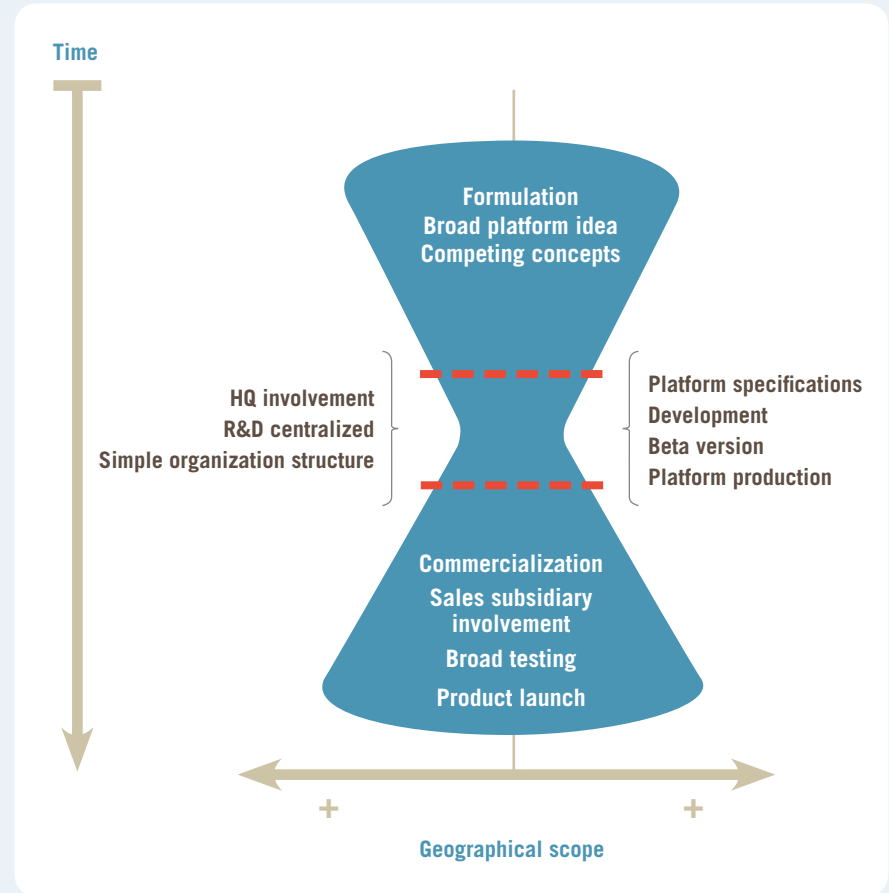


Figure 1. The Hourglass Model of Product Development in Global Firms

ways are internal subsidiaries and external partners involved in the innovation process – sequentially, pooled or in a reciprocal fashion<sup>51</sup>? And second, if critical resources and capabilities are concentrated among a few “bases”, are these bases unique to the organization (what we referred to as home bases in Recipe IX ), complementary or competitive? The issues and questions are manifold, and it is my hope that this recipe will be of help when planning a strategy for product development in your global organization.

## The Nature of the Product Development Process

To sort out the complexities involved in product development processes in global organizations, we must first get a grip on the innovation process as such. Three interrelated factors are traditionally associated with innovation processes in firms: 1) a high degree of technological and economic uncertainty; 2) a need for face-to-face exchange of information and tacit knowledge; and 3) interaction across functions within the firm and with outside firms and organizations (e.g., with research organizations; see Recipe VI) in the development process.<sup>52</sup> Both technological and economic uncertainty are reduced by means of trial-and-error and learning-by-doing processes. It involves frequent iterations about possible technical solutions and designs and depends on the interaction between people involved in the product development efforts. Recurrent face-to-face exchange and creation of (often tacit) knowledge and “language” also provides an important foundation for communication in more explicit forms such as documents, drawings and blueprints. Part of the development work proceeds through interaction between the R&D, marketing and production departments (that can be more or less dispersed geographically), while other parts involve exchange and collaboration with external actors in the cluster, such as suppliers or customers. External knowledge is often critical. Here, longstanding and well-established relationships and bonds form a foundation for creation and exchange of technological and related commercial

knowledge, through informal and formal meetings, joint testing or collaborative R&D projects. These relationships often survive from one generation of managers and engineers to another.

So with this in mind, how should we plan for successful product development processes in our global organization?

In this recipe, we will sort out how to combine your global networks of subsidiaries and partners with your strategic in-house resources for product development. The recipe explicitly addresses a need to strike a balance between local and global resources and influences in your organization. As a general rule, global influences are critical during the initial formulation and concluding commercialization stages, whereas a local focus on a home base should take on a much more prominent role during the development stage (e.g., when specifying a platform), when the need for face-to-face communication in trust-based relationships – both within and outside the organization – and continuous trial-and-error are vitally important.

The suggested model of product development indicates an “hour-glass” profile, with a wide top and bottom, and a much narrower midsection in terms of the geographical spread of resources and capabilities over the product development process.<sup>53</sup>

In the early phases, many concepts and ideas are floating around at different levels and parts of the organization, many of which are competing. At some point, the product development work needs to become more focused. The more strategic functions concentrated at headquarters (such as R&D departments in more traditional manufacturing industries) should now take the lead, working out platform specifications and developing beta versions. This is a very sensitive part of the product development process and should be kept close to the firm (though this is obviously not the case with open-source software). As the product/business model finds its shape, it becomes time to move over to the next phase: testing and commercialization.

Again, the geographical scope should naturally be broadened, involving sales subsidiaries, distribution partners and joint testing (B2B and B2C) with customers and users around the world. At some point, the product or business model is formally launched – for

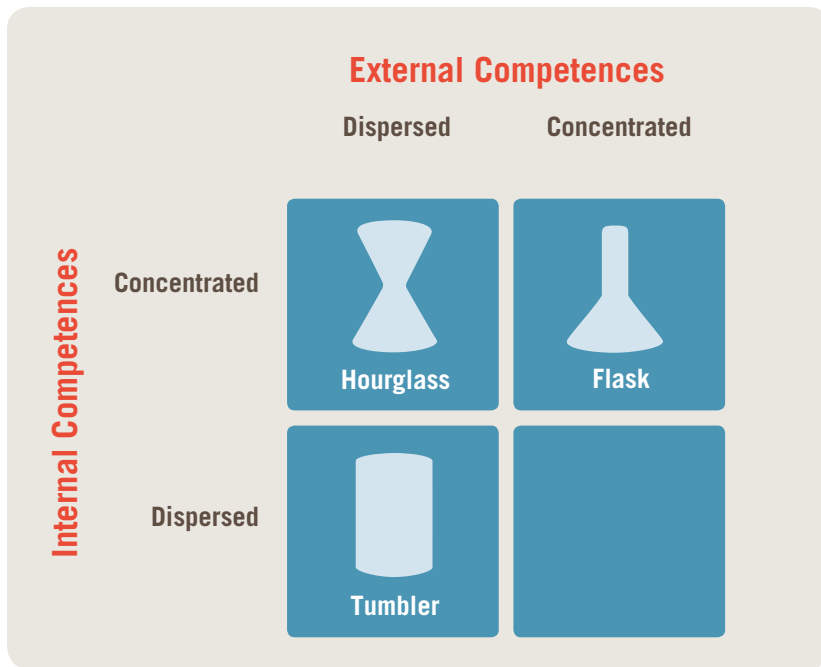


Figure 2. Four Models of Organizing Product Development in a Global Firm

some firms, this occurs at a single point in time, and for others, it occurs in a sequential fashion, market by market, depending on the circumstances.

The shape of the hourglass can vary; some have very thin midsections (i.e., only one home base per product line/area of technology as was proposed in Recipe IX), and some have thin top shapes, where formulation and input in the early phases emanate only from the home base cluster, i.e., something of a flask shape.

In Figure 2, we present three different models, and based on our experience, this Recipe clearly recommends the hourglass model. The tumbler model using both internally and externally dispersed resources throughout the product development process is, we believe, much too costly and will lead to unclear organizational roles within the MNC.

So the question is, which glass suits you and your organization? Hopefully this Recipe, in combination with Recipe IX, will give you some guidance. Good luck with your cooking!

# Notes

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