Much of the research to date has centered on identifying risks that can threaten in-house software development projects [7]. A recent survey of MIS directors has highlighted six factors (use of an inappropriate methodology, lack of customer involvement, lack of formal management practices, dissimilarity to previous projects, project complexity, and requirements volatility) that these experienced managers rated most important in risk assessments of their projects [10]. Most of these risks also apply to outsourced custom or package projects, but recent research suggests that there are some unique risks for clients of outsourced projects, arising from possible difficulties in controlling the vendor involvement [2], and in managing working relationships between vendor and client [5, 6]. As organizations increasingly utilize outsourced solutions for their systems needs, understanding sources of problems in these types of projects becomes increasingly important. The study discussed here is unique in that it focused on outsourced projects from the *vendor's* perspective and identified key risks that are difficult to manage and hence especially important for both vendors and clients to be aware of. Two risks in particular, overoptimistic schedules and budgets and inflated client expectations, are critically important for both vendors and clients considering outsourced projects. Both of these risks arise from the vendor's desire to win business in a highly competitive marketplace.

Knowing what risks may threaten a project is the starting point for ensuring those risks do not evolve into full-blown problems, since once potential threats to a project have been identified, mitigating actions can be taken to reduce the likelihood they actually occur. Yet clearly, since problems with IT projects persist, simply knowing a comprehensive list of risks is not enough to ensure success. It is more important to know which of the many possible risks are most likely to cause problems, either because they are difficult to mitigate or because they are difficult to anticipate. In particular, when conducting a pre-project risk assessment, two types of risks—intractable and unforeseen—are especially important to watch. *Intractable* risks are those risks that resist mitigating actions, and still impact the project despite the manager's best efforts to address them at the start. *Unforeseen* risks are typically overlooked or simply don't seem likely to happen at the risk assessment stage, so that no action is taken to mitigate them. Both intractable and unforeseen risks pose a significant threat to project success even on projects that are subjected to a rigorous pre-project risk assessment.

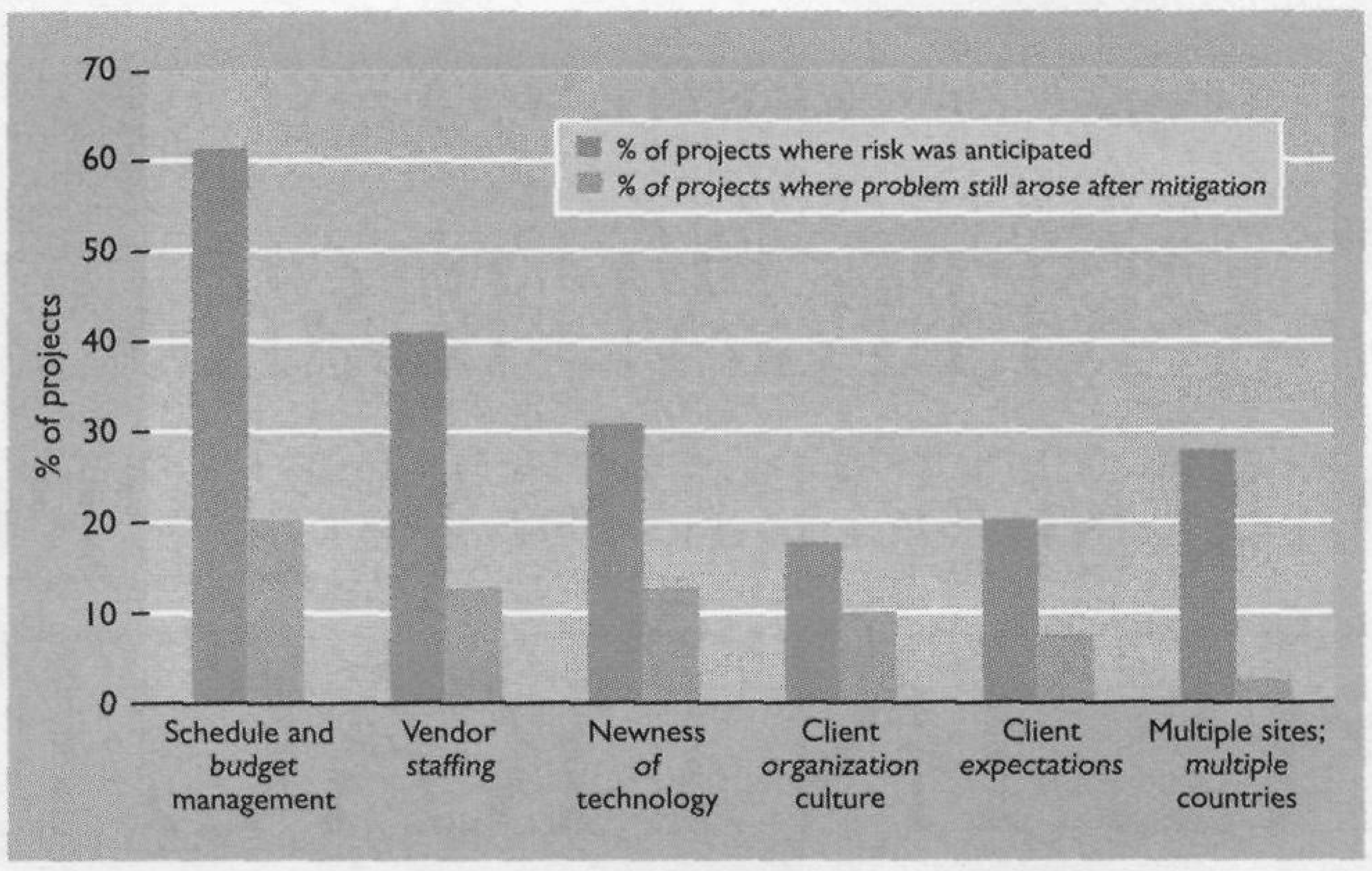

Figure 1. Intractable risks, or problems that still arose after mitigation.

In this article, I focus on these two types of risk in outsourced projects. To learn more about which of the many potential problems identified at the start of projects typically prove to be difficult to manage, and also to uncover those problems most typically unanticipated at the start, I interviewed 25 experienced project managers working with outsourced projects in Hong Kong, using an in-depth critical incident interviewing technique [4, 9]. The respondents discussed specific risk situations related to 39 projects, including 10 "troubled" projects they had managed. They detailed both the risks they had identified at the start, and the problems—anticipated and unanticipated—that came up during their projects. (See "How the Study was Conducted.")

Intractable Problems

As shown in Figure 1, the most likely problem to arise, even after being anticipated and addressed with mitigating actions, was schedule and budget management, often compounded by the second and third most common problems of vendor staffing issues and difficulties arising from the newness of technology. All three of these problems were seen by respondents as having their underlying cause in inadequacies in the pre-sales analysis, resulting in either an overall shortfall in budget or time allowance, or in an underestimation of the skill set required or of the extra work involved in coming to grips with new technology. In all eight of the projects where schedule and budget problems still arose after mitigation, the managers believed they had been asked to take on an overly ambitious project schedule, committed to by the pre-sales team.

This highlights a very important issue, namely the tension between pre-sales and implementation stages of outsourced projects. Project managers viewed the desire of vendor sales teams to win the bid while still remaining within their own limits in terms of pre-sales work costs as an underlying cause of many subsequent problems in outsourced IT projects. As one