Innovation in its essence is an information processing activity. Thus, a major factor impacting the success of new product development (NPD) programs, especially those responding to global markets, is the firm’s ability to access, share and apply NPD information, which is often widely dispersed, functionally, geographically and culturally. To this end, an IT-communication strength is essential, one that is nested in an internal organizational environment that ensures its effective functioning. Using organizational information processing (OIP) theory as a framework, superior global NPD program performance is shown to result from an effective IT/Communication strength and the commitment components of the firm's internal environment, which are hypothesized to moderate this relationship. IT/Communication strength is identified in this study in terms of two components including the IT/Comm Infrastructure and IT/Comm Capability of the firm, whereas the moderating internal environment of the firm incorporates Resource Commitment and Senior Management Involvement. Data from a major empirical study of international NPD programs (382 SBUs) are used to develop and test this model. Based on a hierarchical regression analysis, the results are substantially supportive, with some unexpected findings. These shed light on the complex relationships of the firm's internal environment, OIP competency, and global NPD program performance.