Reducing Capital Market Anomaly: 
The Role of Information Technology Using an 
Information Uncertainty Lens 

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Abstract: In this presentation, I will share insights from a research program on how firms, by implementing IT and enterprise systems (ES) in particular, can mitigate a key anomaly in capital markets—investors underreacting to new public information about the firms. This anomaly reveals that investor behavior in processing new information about a firm deviates significantly from predictions of the efficient market hypothesis and exhibits striking regularity across capital markets worldwide. The anomaly is highly consequential for investors, senior management, public policy and regulatory agencies as it creates transaction frictions, increases cost of capital, and adversely impacts capital formation, corporate governance, and employment. Theory of information uncertainty attributes the anomaly to information uncertainty, or ambiguity of information about a firm’s value that stems from two sources—volatility of the firm’s fundamentals and information quality. We theorize how and why a firm’s IT in general and ES in particular can mitigate information uncertainty, thus reducing the underreaction anomaly. By systematically elaborating this claim and using complementary research designs, we isolate the mechanisms through which ES mitigates the underreaction anomaly, uncover complementarities between functional and operational ES modules, and surface the roles of time since ES implementation and IT capability of the firm in mitigating the anomaly. These findings about how firms can leverage IT to mitigate the underreaction anomaly have significant implications for creating business value at the interstice of IT and corporate governance and for formulating public policy concerned with the efficiency of capital markets. The findings suggest that the efficient functioning of capital markets is a novel, high-impact avenue for future research on the business value of a firm’s IT resources, capabilities, and governance beyond the conventional focus on processes and firm performance.

Bio: Arun Rai is Regents’ Professor of the University System of Georgia at the Robinson College of Business at Georgia State University. He holds the Robinson Chair of IT-enabled Supply Chains and Process Innovation and the Harkins Chair of Information Systems. He is the Editor-in-Chief of *MIS Quarterly*, widely regarded as the premier Information Systems journal. He is a Fellow of the *Association for Information Systems* and a Distinguished Fellow of the INFORMS Information Systems Society. He has served as Senior Editor and Associate Editor for *Information Systems Research, MIS Quarterly*, and *Management Science*, and as a panelist for the National Science Foundation.

Dr. Rai’s research has examined how organizations can leverage IT in strategies, relationships, processes, and business models, and how systems can be designed, developed and deployed to effectively address business and societal problems. He has partnered with leading organizations including Apollo Hospitals, China Mobile, Daimler-Chrysler, Deutsche Bank, Emory Healthcare, Gartner, Grady Hospital, IBM, Intel, SAP, SunTrust, and United Parcel Service on research projects related to creating value through digital innovation. He serves on the Board of Directors of Apollo Indraprastha Hospital (a large hospital in India) and Apollo Health and Lifestyle Limited (a large healthcare retailer in India).