Abstract

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System Dynamics Modeling and Simulation for E-Banking: The Egyptian Context

The Internet has a remarkable impact upon service companies especially in the financial sector. This research adopts the system dynamics approach as the construction model for continuous improvement of service quality. It highlights the quality problems in banks from the perspectives of the main stakeholders customers and Internet banking providers that are concluded from previous papers. From the data analysis, supported by the literature review, seven-service quality dimensions were identified namely Usability, Reliability, Responsiveness, Privacy, Fulfillment, Efficiency, Assurance. An e-banking service quality dynamic decision support system is proposed in this paper. A revised dynamics model was drawn and simulated using Powersim software. System dynamics results show that Customer Relationship Management is a dimension that would increase e-service quality and customer satisfaction. Finally, the results would help banks achieve a competitive edge through allocating attention and resources efficiently among e-service quality dimensions that are more important from the customer's perspective.