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Management

Technology Adoption in India's Food Security Program: A Qualitative Management Approach

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Need: Food security continues to be one of the major challenges for India. Public distribution system (PDS) is one of the largest poverty alleviation programs of India. After the implementation of National Food Security Bill (2013), Government of India is bound to provide subsidized food grains to approximately 800 million people. Managing logistics of food distribution in such large scale possess various challenges. State government of Chhattisgarh, in 2012, implemented point-of-sale devices to be used by salesperson at fair price shop (FPS) to distribute PDS commodity. Salespersons are the primary users of these device and faced several challenges in adopting the new technology. The goal of this study is to identify and prioritize the major challenges that affected the adoption of point-of-sale device among the primary users and propose a framework to resolve them using Six Sigma methodology. This will result in smooth adoption of point-of-sale device among salesperson for distribution and management of PDS commodity, which will translate in smooth commodity distribution and less pilferage of food grain.

Overview: PDS is India's largest food security scheme that aims at providing physical and economic access of staple food grains (wheat and rice) and other essential commodities (sugar, salt, kerosene, etc.) to below poverty line (BPL) households. The National Food Security Bill, 2013 is expected to be implemented in all the states by April, 2016. The bill entitles food subsidies under PDS to 75% of the rural population and 50% of the urban population of the nation. Understanding the need of technology interventions, the union budget of 2016-17 aims at computerization of more than 50% of FPS out of a total 535,000 shops in the country by March 2017. A perspective analysis of the FPS salespersons is used to identify the challenges faced by them in new technology adoption. The use of six sigma tools has been demonstrated to propose a framework for effective technology adoption. Six Sigma DMAIC approach will be applied to address the identified challenges.

Major Points:
- Importance of food security and impact of National Food Security Bill
- Importance of Information and Communications Technology (ICT) in e-governance
- Demonstrate the use of six-sigma methodology for technology adoption in food supply chain
- Identify and prioritize major challenges faced by users of new technology in PDS supply chain
- Identifying various possible solutions to these challenges

Summary: The attendees will get an in-depth information of role of ICT in Indian food security system and various challenges it poses to the users of new technology, affecting the performance of PDS. Application of six sigma methodology to improve ICT implementation in e-governance will be discussed. Implications of the work on PDS performance will be shared.