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**(Topic " Digital Transformation of procurement systems: Addressing
Transparency & Fraud Risks In Pakistan State Oil)**



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DEDICATION

This is in honour of our families who consistently and patiently supported us during our late nights, as well as our moments of self doubt. It is dedicated to the reformers of the Pakistani public service, to all who recognize that transparency should be a right, not a luxury, for every citizen and for all Pakistani citizens to enjoy. it is dedicated to Sir Sabir Ali, for whom the intellectual direction this work follows and the rules of learning this work documents, were destined.

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It is important to note here the tremendous assistance which we had enjoyed in this project i.e. our supervisor, Sir Sabir Ali. In guiding us in our thinking and writing, it is his devotion that put us on this path, and if it wasn't for him, this study would never be the one we are now, and would never be the one we are coming to be.

So, a debt we owe to that staff of Bahria Business School, Bahria University Islamabad Campus, whose teachings during the last 8 semesters provided the casing and stepping stone on which the intellectual framework of this study was built. Its interdisciplinary background in its approaches to the supply chain management and corporate governance and the round of the digitization was crucial.

Sources on Pakistan State Oil (PSO), the Public Procurement Regulatory Authority (PPRA), Transparency International Pakistan and the Business Recorder, which, fortunately, happen to be our source of empirically grounding our analysis. This even came in handy with the secondary reports, which were provided by the Auditor General of Pakistan and structures of public procurement that had been recommended by the World Bank.

The last, but not least we wish to convey our moral support to our fellow students and families, and our space of research at Bahria University which helps us to nurture intellectual freedom and critical thinking.

EXECUTIVE SUMMARY

The largest corporation within Pakistan is the oil marketing company, Pakistan State Oil or commonly referred as PSO, with trailing revenues of about USD 11.2 billion for the last twelve months amounting to Pakistan's biggest oil marketing company. Its procurement role is a significant one that involves two million orders every day for over three thousand retail outlets for the purchase of petroleum products, maintenance contracts, IT products and services as well as procurement of logistics services.

This report explores the structural changes that PSO has delivered through digitalization in its tender process as a response to reported transparency issues and potential fraud risks in the tendering process. The study examines PPRA existing procurement ecosystem – drawn from publicly available audit report data, PPRA complaints data and secondary literature – and systematically assesses how PPRA technologies, namely SAP Ariba (introduced in 2021) supported by blockchain based ledgers, AI-powered analytics and IoT tracking use could take the cogs out of identified governance gaps.

This study shows ten key fraud and transparency risk categories such as bid rigging, single source awards (compliant), non-compliant single source awards, ERP data tampering, and ghost vendor payments. The digital base for PSO is working well with SAP Ariba and SAP ERP, but gaps created by poor visibility and/or governance aspects of the procurement process exist, specifically in regards to materials. This analysis has led to the introduction of a four-phase Digital Transformation Framework which goes from standardization, analytics integration to full digitalization and global benchmarking. The report concludes that digital transformation at PSO is not a technology upgrade, but rather a Governance matter. Results from implementation will translate to the estimated saving of 30-40 per cent in procurement fraud, 25-35 per cent in procurement cycle times and making PSO a public sector governance benchmark for the wider public sector in Pakistan.