

AN INQUIRY INTO THE IMPLEMENTATION PROCESS OF THE NEW ACCOUNTING MODEL

Irfan Ullah, Government College of Management Sciences Talash, Dir Lower, Pakistan. Email: papeenkhel@gmail.com

Arshad Ali, Associate Professor, Department of Management Studies, University of Malakand, Pakistan. Email: arshaduom@gmail.com

Abstract. *The New Accounting Model has been adopted as a government accounting system in Pakistan under PIFRA reforms. This study aims to investigate the process of implementing the New Accounting Model, as previous research has given inadequate focus to the government accounting of Pakistan and its constituents. The results are considered valuable for education, policy, and practice in government accounting and have the potential to provide insights for future amendments. A thematic analysis of the interview data reveals that the New Accounting Model was implemented in a systematic manner. This encompassed conducting a feasibility study, designing the New Accounting Model and System Application Program, conducting testing at designated locations, capacity building, establishing necessary infrastructure, and subsequent functionalization of the model at pilot, rollout, and replica sites.*

Received 18 April 2024

Revised 10 May 2024

Accepted 15 June 2024

Keywords: New accounting model (NAM), government accounting, accounting innovation, PIFRA

Introduction

Organisations, irrespective of their taxonomy, need a system of recording transactions and presenting them in a coherent and widely understandable manner (Monsen & Nasi, 1998; Tennent, 2008, pp. 28, 40). In government organisations, this function is performed through a specialized area generally known as government accounting or public sector accounting (Wilson, Reck, Kattelus, & Robbins, 2010). Government Accounting primarily produces and reports financial information pertaining to the revenues, expenses, payables, receivables, and assets of the government with the aim of rationalising the stakeholders' decisions (Gokten, 2017, p. 240; Rajin, Dzunic, & Radojevic, 2019; Swiatek, 2016).

The government accounting system in Pakistan is deep-rooted and has gone through some reforms. In its entirety, there is a transition from a legacy system to the New Accounting Model (Ullah & Ali, 2022). At the time of independence, the

New Accounting Model (Ullah & Ali, 2022). At the time of independence, the country inherited the British government accounting system that was prevalent in undivided India for lack of time (Ashraf & Ghani, 2005) as the newly emerged country was faced with numerous challenges, including those of a legislative and governance nature (Prakash, 2011). Later on, some trivial measures were taken through the parliamentary statutes of 1956 and 1962 and the Ministry of Finance (MoF) financial management reforms of 1960, 1963, and 1969, but in reality, the system was the same as it was at the time of independence (Kureishy, 1973). In the 1990s, Pakistan realised the need for a new state-of-the-art accounting system in response to the New Public Management (NPM) (Ceasay, 2004). For this purpose, the World Bank (WB) funded the Project to Improve Financial Reporting and Auditing (PIFRA) in close coordination with the Auditor General of Pakistan (AGP) (Elahi, 2015). An important component of PIFRA was the introduction of the New Accounting Model (NAM) (Hashim, 2014). NAM aimed to produce timely, relevant, accurate, reliable, and comprehensive financial reports for decision-makers to enable effective accountability and better financial governance (GoP, 2018). Currently, the NAM is in place in all tiers of government as a system of government accounting after the completion of PIFRA in 2014 (Buzdar, 2020). The NAM is considered a state-of-the-art accounting system that, on the one hand, modernised the government accounting function while, on the other hand, providing a roadmap for its standardisation (Ullah & Ali, 2022).

Government accounting, in comparison to its counterpart disciplines, has not substantially attracted researchers' attention in the past (Hopper & Bui, 2016; Tikik, 2010). However, the interest of researchers is increasing currently as scholars from around the world are contributing to public sector accounting research (Fleischman, Mills, & Tyson, 1996). There is some prior research on government accounting in Pakistan, such as, Abdus (2019); Buzdar (2020); Elahi (2015); Hashim (2014); Javed and Zhuquan (2018); Khalid (2019); Ullah and Ali (2022) with a prime focus on PIFRA and its constituents, but none of these studies have delved into the implementation process of the NAM. Further, the prominent government accounting change models include Christensen (2002); Jaruga, Nowak, and LisieckaZajac (1998); Luder (1992); Lüder (2002); Godfrey, Devlin, and Merrouche (2001) have largely focused on the mega steps that necessitate deciding on and introducing a new accounting system, ignoring how a new accounting system is actually implemented in the field. Henceforth, this study attempts to answer how the New Accounting Model has been implemented during the harmonization of the government accounting system under PIFRA in Pakistan.

The practice of implementing new accounting systems differs from country to country, and it is worth investigating these practices individually (Jorge, Nogueira, & Ribeiro, 2020; Liguori, 2012). Moreover, Badshah, Mellemvik, and Timoshenko (2013); Ullah and Ali (2022) suggested an inquiry into the implementation process of change in the government accounting of Pakistan. This study therefore aims to

contribute in terms of an aid to accounting pedagogy, policy, and practice by addressing these gaps (Previts, Parker, & Coffman, 1990).

The rest of the paper is organised as in the next section consists of a literature review of the subject matter. Then, a section on the methodology highlights the data sources and method of analysis. Next to that is a section of the results and discussion, which is followed by the conclusions.

Literature Review

Implementation is deemed a process that turns the decision to use the innovation into routine use by its stakeholders (Damanpour & Schneider, 2006; Klein & Sorra, 1996). Hartley (2014) opines that the implementation phase embeds the innovation and transforms the idea into a product. It consists of the activities that belong to customising the innovation, ensuring organisational adaptability, pilot testing, ensuring the acceptance of users, and making it a routine (Duncan, 1976; Meyer & Goes, 1988; Rogers, 1971). Among the variant models of innovation, the stage of implementation is considered to be of utmost importance with consensus (Pierce & Delbecq, 1977). The reason is that no innovation is successful unless it has a solid implementation strategy (Brands, 2015). At the same time, it is the most difficult phase as well because something that was conceived in the planning phase, which is more ideal, is now to be applied on the ground, which is more practical (Bryson, 2018; George, 2007).

Accounting change is regarded as an ongoing process (Burns & Scapens, 2000). However, the formal implementation of a major accounting change, such as the introduction of performance budgeting in government, generally takes place within a period with a fairly well-defined beginning and end. The "real" implementation phase, which typically begins when employees adapt to and accept the new accounting instruments, occurs after their formal introduction. Some of the new instruments may be modified because they do not work well or because some groups within the organisation resist their implementation (Burns & Scapens, 2000). Therefore, it is necessary to study and analyse the process of developing and implementing innovations in government accounting (Chan, Jones, & Lüder, 1996).

In general, the government accounting innovation process comprises three stages: the introduction, development, and improvement of the invention (Haldma, 2004). This is consistent with other innovation processes (Cumming, 1998). The introduction stage focuses on idea generation, the construction stage is involved with implementation, and the improvement stage is concerned with maintaining the innovation (Hartley, 2005). Each of these steps is dependent on the characteristics and quantity of innovative thinking (Edwards-Schachter, 2018). Thus, the adoption of new accounting procedures is easy when the change is

implemented on a smaller scale and involves lower costs, and vice versa (Luder, 1992). Upping and Oliver (2011) discovered that the implementation stage of the change process consists of three more steps: re-inventing, clarifying, and re-routing. They argue that the re-invention step is a component of the matching stage, which adjusts or restructures the system to prepare for the complete implementation of accounting innovation. The clarifying phase is the stage in which it is essential to obtain a clear understanding of the accounting change. The reutilizing stage refers to the point at which individuals within the organisation consider accounting adjustments as routine tasks rather than new work.

At large, the implementation of innovations in government accounting begins with the legislative approval of parliamentarians, usually in the form of a bill or act (Tikk, 2010). In order to innovate an accounting system and to give room to incorporate IPSAS, it is a prerequisite that the legal framework be crafted by looping in all the stakeholders (Khalid, 2019). In both presidential and parliamentary democracies, innovations in the system are stirred and approved by the elected politicians, and at a later stage, they appoint the high-ups in the bureaucracy to ensure proper implementation. Then it proceeds in the form of the mapping of a new chart of accounts, the issuance of guidelines on financial procedures, the training of personnel, the adoption of a zero-base budgeting technique, the establishment of accountability and authority, organisational restructuring, and the deployment of information technology stuff (Alkaraan, 2018). Argento, Peda, and Grossi (2018) found that the government accounting innovation process consists of many stages to depart from the cash basis of accounting to the accrual basis of IPSAS, including mapping of the accounting regulation, establishment of standard setting bodies, and adoption of IPSAS. After the decision to adapt an innovation, recruitment of personnel, selection of an implementation team, and training of them are the important steps to follow (Meyers, Durlak, & Wandersman, 2012). All along, regular monitoring of the implementation and feedback are the pre-requisites of quality implementation (Meyers et al., 2012).

Beside stages of implementation, Luder (2002) commented on the strategies of implementation in the PFMR model as authoritarian or participative, centrally guided, and uni-step or multi-step. The authoritative approach follows the principle of “come with me” by stating the overall objectives without in-depth participation in decision making by subordinates (Goleman, 2017). Conversely, the participative approach relies on an increased level of participation from the stakeholders in the decision-making process (Gilberg, 1988) which leads to higher organisational performance (Denhardt & Catlaw, 2014). Change can be seen as a centrally driven effort where the organisation’s top management plays a key role. It recognises the need to change, plans, organises, and oversees the change. Other organisational agents are in a secondary position, assisting and implementing a centrally initiated, comprehensive top-down effort (Burns & Vaivio, 2001).

In contrast to multistep innovation, uni-step innovation adheres to innovating the system in a row without periodic gaps or phased bases. Some other delineating issues with regards to implementation strategies are, whether the implementation was disruptive/radical or incremental/sedimented, and whether it was voluntary or coercive on the part of the individual organisations to adopt (Liguori, 2012). A disruptive implementation consists of a long period of transition with small periodic brackets of radical changes (Romanelli & Tushman, 1994) that focuses on changing the related ideas, operating philosophy, values, and beliefs of the entire entity (Laughlin, 1991). While incremental implementation consists of a gradual change in system and structure (Malhotra & Hinings, 2005), unlike radical changes, the focus is on changing the managerial arrangement only (Broadbent & Guthrie, 1992). Keeping in view these scenarios, if the situations are not very certain and difficulties prevail, staged implementation is suggested (Bryson, 2018). Because radical solutions can yield more problems, it is suggested to implement the innovation in a gradual, step-wise manner and to resort to individual experiences as well (Brito & Jorge, 2020).

There are some cases where the implementation process followed a top-down approach—from the central government to the state and local governments—for example, the case of Spain. while there are others where the implementation followed a path where first a pilot case was considered and later on the innovation was extended to other public sector organisations, for example, the case of Italy (Jorge et al., 2020). To look into the benefits of starting with pilot entities, Rossi and Trequattrini (2011) argue that the “implementation phase provides for the start-up of pilot projects to test the hypothesised course on local governments and central administrations, with the consequent redefinition of the accounting model, the redesign and reengineering of processes and procedures, and organisational innovation measures (development of adequate skills with respect to human resources, realisation of the functionalities of the information systems) in the pilot entities.” Also, starting innovations with pilot groups helps to understand the issues that come up with innovations a long time before they are fully implemented. This way, most of the issues can be solved in a reasonable way (McLeod & Harun, 2014; Ridder, Bruns, & Spier, 2005).

An important element of the implementation is the qualification and training of the personnel responsible for accounting functions in the public sector (Pratap & Quintin, 2006). The new accounting system must design training programmes and implement them in order to produce personnel fully equipped with the skills to perform the PSA function (Ghaffoori, 2016).

Research Methodology

This research opted for a semi-structured interview, keeping these advantages upfront. Further, a large number of studies, including Harun and Robinson (2010); Luder (1992); Neves and Gómez-Villegas (2020) interviewed the knowledgeable staff in order to conclude on the practices of public sector accounting innovations. An interview guide was developed based on a literature review (Braun & Clarke, 2013; Yin, 2002) to conduct interviews with sample respondents and address the research objectives of the study. The models of public sector accounting transformation served as the primary resource for these research questions.

The population of the study consisted of the personnel attached with accounting function in public sector of the country. In the light of Hartley (2004) framework, the organizational structure/ organogram has been used to derive the population frame from the key players in the financial management/accounting, auditing and financial system of the country. Sample respondents were selected on the basis of purposive sampling method from among the relevant offices. Purposive sampling is a sampling technique where respondents are opted based on their suitability with objectives of the study, reasonably to involve well informed respondents (Creswell & Plano Clark, 2011; Etikan, Musa, & Alkassim, 2016).

A basic criteria, that we followed was to interview those respondents who have been part of the innovation of the accounting system under PIFRA (Rashman et al., 2005). Further, to ensure effective representation, a stratified form of purposeful sampling was selecting with maximum variation sampling (Liguori, 2012). The process involved contacting various stakeholders, including DAOs, AGs, AGPRs, Finance department, CGA, and AGP, to gather information at various levels, including operational, management, strategic-cum-management, Siemens consultants, and World Bank employees, to ensure participation from users, producers, and agents (Harun & Robinson, 2010). Twenty four respondents from different departments were interviewed for the study, which followed the segregation patterns of Patton (2014) and was in line with earlier research by Liguori (2012). All such interview were dully transcribed for thematic analysis through NVivo listed in Table 1.

Results and discussion

Figure 1 illustrates the process of implementing the New Accounting Model in the field. This process involved several steps, including conducting a feasibility study, designing the NAM and SAP, testing them at various sites, building capacity, providing necessary infrastructure, and finally making them fully functional at pilot sites, rollout sites, and replica sites.

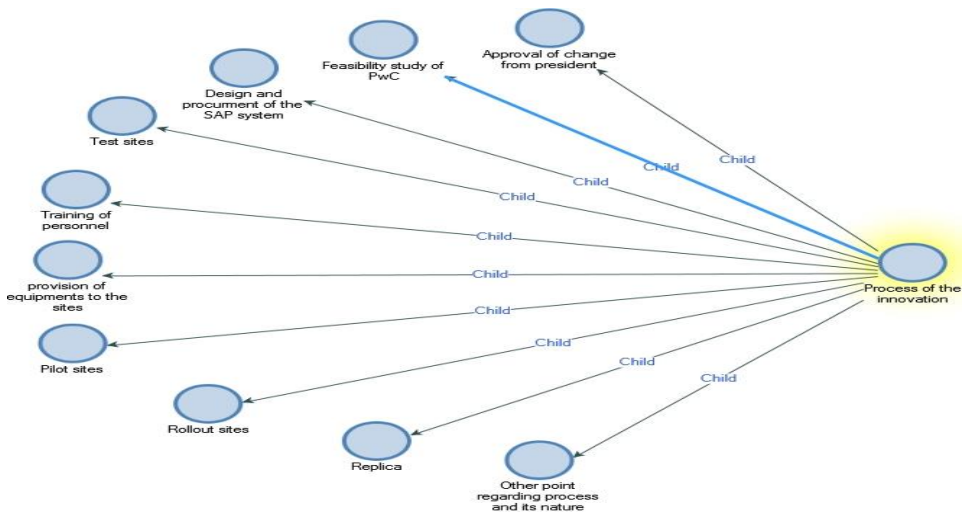


Figure 1: Phases of Implementation of the New Accounting Model

System feasibility: A diagnostic study

The introduction of NAM under PIFRA was the biggest change ever made to government accounting in Pakistan. This innovation placed strong footing with a preliminary study of the environment of government accounting by looking into the current policies and procedures, needs for improvement, prevalent shortcomings, and ways of improving government accounting in the country. This preliminary study was the first formal attempt to address these questions, which is known as the diagnostic study.

For the conduct of this diagnostic study, Price Waterhouse Coopers (PwC) was hired under PIFRA as a consultant. In 1992, the diagnostic study of PwC highlighted a few assertions, primarily consisting of the following points: Firstly, the manual operating procedures of public sector accounting were strongly questioned. Secondly, the study pointed out the lack of professional training and stressed the need for effective training programs. Thirdly, it was also revealed that the offices of government accounting and auditing are occupied by personnel with low capacity to professionally perform the functions of accounting and auditing. It was further reported that “there are many employees who are performing the functions of accountants and auditors who have not studied any of these subjects in their entire academic education” (PwC, 1992). The findings of this study provided the groundwork to proceed with the configuration of a new automated government accounting system.

After the successful completion of the feasibility study, there was a commitment that PwC should produce a complete package consisting of the development of a

new accounting model and a complete implementation plan to upgrade the legacy system. However, the PwC was found incapable of doing the right things at the right time, either intentionally or due to a lack of capacity. While referring to the failure of PwC in the configuration of an effective ERP, a respondent MA-17 revealed that “on one hand, the progress of PwC was very slow to configure and deliver the new accounting system, while on the other hand, their package (ERP) was not matching the demands and ground realities of indigenous government accounting.” The respondent further contoured to mention the bad intentions of PwC, saying, “We found PwC keen to find ways to fail the project rather than to make it a success. Even, we came to know that some of the strategic management personnel who were bad wishers of the PIFRA were helping the PwC lead the PIFRA to failure.” All such complications, especially the lack of trust between PwC and PIFRA, resulted in the cancellation of the contract between the parties before the completion of the tenure and the project. Eventually, they awarded the design of the new system to a new consulting firm.

Design and procurement of the new accounting system: The NAM and SAP

After a termination of the contract between PIFRA and PwC, the consultancy contract was awarded to Siemens. Though the feasibility study made the groundwork clear for further proceedings, the actual challenge that still persisted was the design of a new accounting system that should correspond to the needs of the users and producers of the government accounting information system and, at the same time, be acceptable to other stakeholders, especially the donor agency.

For this purpose, with the departure from the legacy system, accounting policies and procedures were switched over to the New Accounting Model. A creditworthy facet of the NAM is that it was written in a time when even the first standard of IPSAS was not yet written, while its writers claim that a lot of material has been taken from the NAM in the development of IPSAS. A respondent, IA-05, who had taken part in the development and write-up of NAM, added that “when Pakistan started to improvise their government accounting, none of the standard was available around the world for public sector accounting. No doubt, the economist had a framework to assess the status of borrowers, which is known as GFS 1986 and has now been revised many times. But importantly, there was no role for accountants in framing the GFS manual. A more interesting point is that the GFS manual does not contain any set of accounting standards for government entities. Most people don’t know that Pakistan completed the full set of NAM in 1998. As you know, IFAC formed a public sector committee in 1996 for the first time, and that committee started to write studies afterwards. Despite writing up their studies up to study eight, there were no standards developed, and, by the grace of Almighty Allah, we had the first draft of NAM in 1998. The first standard of IPSAS-cash basis came in 2001, and if you study it carefully, you will find 80 percent material of NAM, while the IPSAS-accrual basis came very late in 2007-08, I think.”

Further, the existing software was based on COBOL, had no graphical user interface, and was running in DOS mode. It was changed to a new, state-of-the art user-friendly SAP/R3. SAP is fully automated enterprise resource planning (ERP) software consisting of several fully integrated modules, while SAP R/3 is its upgraded version. It is worth noting with reference to Pakistan that SAP, a German software procured and installed through Siemens, was the first time installed in government entities in the developing part of the world. This software was specifically designed for the local needs of the government accounting of the country, with a key prerequisite to robustly incorporate the accounting policies and procedures of the NAM.

Testing the compatibility: The Test sites

After the configuration and procurement of the SAP, the next phase was to run the data through pilot tests in order to authenticate the compatibility of the new system with the requirements of the government accounting cycle and financial reporting. For this purpose, sample data was retrieved from the legacy system from the Department of Finance, Income Tax, Accountant General, Accountant General of Pakistan Revenue, and a few District Accounts Offices. The data was retrieved from these organisations in CD's, which were then converted into Excel format to make it compatible with SAP. The test was run in AGPR Islamabad in the presence of high officials of PIFRA, Siemens consultants, and representatives of the concerned departments. Reportedly, a variety of tests were run on different kinds of data, like receipts, payments, salaries, pensions, GP Fund, etc.

Respondents identified two benefits of the testing before full implementation of the NAM. One was that it ensured the compatibility of existing data from the legacy system with SAP. Two, it also provided proof of the efficacy of the new system to meet the needs of different stakeholders, especially users and producers of accounting information. A respondent, KF-10, narrated, “during the implementation, our determination accelerated with a successful attempt at the test sites. We had a variety of data from various types of organizations. The test was conducted in AGPR Islamabad, and it continued for almost a week. We tried the data and ran the requisite reports many times to identify any potential gaps that could occur later on during implementation in the field offices. However, at the closure of the sessions at the test sites, we had satisfaction regarding the compatibility of the NAM.”

Capacity building: Training of personnel

Figure 1 depicts the next step after satisfactory runs of the tests: the training of personnel in the accounting, auditing, and finance departments, especially end users of the new accounting system. Results revealed that initial training was provided to the master trainers, and then selected officials were trained in different

batches. The preliminary trainings and subsequent trainings were conducted at the provincial headquarters of the government accounting offices known as the Accountant General Office with an off-the-job vestibule mechanism.

The very initial training on the new accounting system started in the province of Khyber Pakhtunkhwa (ex. NWFP-North West Frontier Province) in the AG office in Peshawar. This training was more off-the-job and of a vestibule nature, and it preceded the provision of necessary technological support to the field offices. However, a majority of the training sessions, after the provision and installation of the computer system and its accessories, were also conducted purely on an off-the-job basis. A respondent (AU-11) commented that “in the first instance, the consultants provided training to the master trainers that were selected from the offices of AGP, CGA, and AG. Some of these personnel were sent abroad for training and higher education. Later on, the master trainers provided training to the remaining staff as and when the field offices were to get productive.”

A respondent RU-13 continued that to highlight the process of training as “the first phase of training was conducted when we didn’t have any equipment for the new accounting system in our field offices and were to go to the AG office for training. This training was actually a blend of theory and practice regarding NAM and SAP. Later on, when we received the lumpy set of SAP in our field offices, the consultants at Siemens processed the monthly account of our site, which I felt was more practical learning for us. Then, for the next few months, we were to process monthly accounts in the AG office in collaboration with the master trainers and the consultants. This process continued till we had the satisfaction that we could prepare our monthly accounts on our own without the instant support of master trainers and/or consultants.”

We infer that the prime tool of learning in the introduction of the NAM was the training of personnel, and it yielded some potential benefits. However, we also found some serious reservations of the trainees regarding the training component, such as timing of trainings, selection of trainees, including master trainers, materials of training, and duration of training, which were not up to the benchmark standards.

Building up the infrastructure: construction and extension of technological support

The next step in the implementation of the NAM was the extension of technological support to the sites in the field, as depicted in Figure 1. The important components of technological support were the provision of a computer system and its accessories, as well as the setting up of internet networks. A respondent, SK-22, summarised that “after initial training, when we were back in the field offices, a few months later we were provided with the computers, UPSs, workstations, printers, and internet connectivity devices.”

Besides, in the old system of accounting, the offices were very old-fashioned, and the equipment was also obsolete. So as part of the project, the need was felt during the assessment phase to renovate the offices in order to provide a more conducive work environment for the functions of accounting and auditing. Resultantly, we found special cells and blocks that were newly constructed under PIFRA with well-set ergonomics. The respondent SK-22 continued, “As you see the upper section of our office (he referred to a section of the office that was very old and almost damaged), that is our old officer before the construction of this new block. The equipment that was provided under PIFRA required ample space. So, before the provision of this equipment, this new block (in which we were conducting the interview) has been constructed.”

The go: A run at Pilot sites, Roll out sites and the Replica

The final stage of the implementation of NAM, which we thematically call ‘the go’ stage, encapsulated the working at pilot sites, then at rollout sites, and finally at replica sites. PIFRA, in its entirety, began in 1995 and reached its formal implementation in the pilot sites in July 2002. Subsequently, different sites underwent the rollout stages at different times, and the replica sites were finalized in June 2013. The first instance of the implementation of NAM started in the Khyber Pakhtunkhwa (KP) province of the country. Initially, as per the strategy of the implementation, pilot sites were addressed, with a subsequent extension to rollout and replica sites. The same procedure of gradual extension was adopted when the project was extended to other provinces.

Figure 1 depicts that the implementation of NAM was extended to the pilot site after the provision of the requisite infrastructure to the field offices. The pilot sites were a few sample sites (field offices and departments) that were considered for the innovation of the government accounting system on a tentative basis. Among the list of pilot sites, we found the DAO Swat, DAO Mardan, AG KP, AGRP Islamabad, Finance Department KP, and DAO Ghalanai, while the DAO Abbottabad stands very first concerning this list of harmonised sites. While looking for criteria for the selection of pilot sites, we found all those sites in the list of pilots that had a relatively large number of employees and a budgetary allocation. Further, we found during the pilot phase that both the legacy system and NAM through SAP were simultaneously functional, which was a laborious and duplicating practice.

Next, in the go step, was the extension of NAM to the roll-out sites. The roll-out sites were those field offices and departments that were relatively easy to computerise their functioning on the new system, viz., their accounting procedures were already running on a COBOL-based system. For example, a respondent MQ-07 argues, “After the pilot sites, the project was extended to the roll-out sites. By roll-out site, we mean those sites or districts where there were fewer issues with

implementation. Such sites were not invited to the new system all at once. A cluster of sites were considered in a single batch; for example, in 2006, districts like Dir upper, Dir lower, Buner, Malakand, etc. were considered for configuration and implementation.” This phase was very extensive, and it led to the adoption of a new system in most parts of the province. We also found that the roll-sites were also configured on the NAM in phases due to the capacity of the trainers and to ensure a smooth and gradual implementation. Further, after success in the pilot sites, training and initial pilots were introduced in other provinces as well. So, while the roll-out phase was in progress in KP, the extension of the project to other provinces was in progress as well. A respondent (IU-14) commented that “after satisfactory implementation in the pilot sites, we moved on for training personnel from other provinces. As I remember, in 2002–2003 we started training in the province of Sindh, then Baluchistan, then Lahore, and finally Azad Kashmir, etc. were considered.”

The replica stage is the last phase of NAM implementation. By replica, the project aimed to extend it to all the remaining parts of the province. By the introduction of replica, those areas or districts were not yet configured, where there were issues like lack of proper infrastructure, governance, and security, and especially their system was totally based on manual accounting procedures. A respondent, MM-12, said that “a difficult time was the conversion of sites to SAP in the replica stage. Because pure manual government accounting was in practice at such sites, In a COBOL-based system, it was easy to transfer data to Excel and then SAP, but here it was a laborious process to retrieve and transfer data from a manual system. As far as I remember, such districts were Karak, Lakkir Marwat, Battagram, Kohistan, and Chitral.”

Table 1. *Process of Implementation of the NAM*

Themes/Sub-themes code)	Freqcy (n=24)	Evidence
Feasibility study of PwC (FS)	8	The feasibility study summed up concerning the existing accounting system that it ‘failed to cater for the needs of users in terms of timeliness, reliability, completeness and presentation’ (PwC, 1992).
Design and procurement of the SAP system (DSAP)	15	SAP, a German software procured and installed through Siemens, was first installed in government entities in the developing part of the world. This software was specifically designed for the local needs of the government accounting of a country, with a key prerequisite to robustly incorporate the accounting policies and procedures of the NAM (IA-05).
Test sites	11	We had a variety of data from various types of

(TS)		organizations. The test was conducted in AGPR Islamabad, and it continued for almost a week. We tried the data and ran the requisite reports many times to identify any potential gaps that could occur later on during implementation in the field offices (KF-10).
Training of personnel (Trg)	17	This training was actually a blend of theory and practice regarding NAM and SAP. Later on, when we received the lumpy set of SAP in our field offices, the consultants at Siemens processed the monthly account of our site, which I felt was more practical learning for us. Then, for the next few months, we were to process monthly accounts in the AG office in collaboration with the master trainers and the consultants. This process continued till we had the satisfaction that we could prepare our monthly accounts on our own (RU-13).
Provision of equipment's to the sites (Res)	9	after initial training, when were back in the field offices, a few months later we were provided with the computers, UPSs, workstations, printers and internet connectivity devices (SK-22).
The go: Pilot site, rollout sites and replica (IMP)	13	<p>In its entirety, PIFRA started in 1995 and reached its formal implementation in the pilot sites in July 2002, followed by different sites in the rollout stages at different times, with the final completion of the replica sites in June 2013 (AK-03).</p> <p>“After pilot sites, the project was extended to the roll-out sites. By roll-out site, we mean those sites or districts where there were fewer issues with implementation. Such sites were not invited to the new system all at once. A cluster of sites was considered in a single batch (MQ-07).</p> <p>The system was implemented in a phased manner. It was first tested at a test site in Islamabad; then it was piloted at the AGPR Islamabad, the AG-NWFP, and two DAOs reporting to the AG; and finally it was replicated at all sites (World Bank, 2005).</p>

Conclusion

To conclude on the process of implementation, the study infers that the implementation of NAM was very coherent to put the new system into practice. In the first phase, the province of Khyber Pakhtunkhwa was selected for harmonisation for two basic reasons. One, the total accounting information was less than that of the other provinces, which made it handy to complete it in time with due efficacy. Two, as the COBOL-based legacy system was in practice in a major part of the province, it was noted that its data is more conducive to being re-configured with SAP without many disruptions. Following KP, they extended SAP to Sindh, Baluchistan, Punjab, and Azad Kashmir.

In its entirety, the New Accounting Model has been methodically implemented through the conduct of the feasibility study, the design of the NAM and SAP, tests at the test sites, capacity building, provision of the infrastructure, and subsequent functionalization at pilot sites, rollout sites, and replica sites.

Our findings on this parameter conform to the postulations of Luder (2002), who asserted that implementation of change is a multi-stage process rather than a uni-stage due to the contingent nature of the country's customized accounting system. On the contrary, we see our implementation as neither purely authoritarian nor purely participative; it was a mix of both. Further, our results also confirm the postulations of Alkaraan (2018); Tikk (2010) who state that the process of innovation starts with legislation, and rightly so in the case of Pakistan, the president approved the change in accounting system with the subsequent promulgation of the AGP and CGA Ordinances. The study also partially endorses the findings of Duncan (1976); Meyer and Goes (1988); Meyers et al. (2012); Rogers (1971), who state that the process of innovation contains the steps of system design, pilot testing, and personnel training. However, our finding contradicts Jorge et al. (2020) for stating that the implementation of the new system is first installed in a central location and later extended to the provinces, but we found the reverse to be true.

References

- Abdus, S. (2019). International public sector accounting standard in Pakistan. *PIPFA Journal*, 24(2), 18-19.
- Alkaraan, F. (2018). Public financial management reform: an ongoing journey towards good governance. *Journal of Financial Reporting and Accounting*, 16(4), 585-609.
- Argento, D., Peda, P., & Grossi, G. (2018). The enabling role of institutional entrepreneurs in the adoption of IPSAS within a transitional economy: The case of Estonia. *Public Administration and Development*, 38(1), 39-49.

- Ashraf, J., & Ghani, W. I. (2005). *Accounting in a Country: The Case of Pakistan*. Lahore, Pakistan: Centre for Management and Economic Research (CMER), Lahore University of Management Sciences (LUMS).
- Badshah, I., Mellemvik, F., & Timoshenko, K. (2013). Accounting from a religious perspective: A case of the central government accounting in Islamic Republic of Pakistan. *Asian Economic and Financial Review*, 3(2), 243-258.
- Brands, R. F. (2015). The key to successful innovation is proper implementation. Retrieved from <https://chiefexecutive.net/the-key-to-successful-innovation-is-proper-implementation/>
- Braun, V., & Clarke, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners*: Sage Publication.
- Brito, J. R., & Jorge, S. (2020). The institutionalization of a new accrual-based public sector accounting system: The case of Cape Verde. *International Journal of Public Administration*, 1-18.
- Broadbent, J., & Guthrie, J. (1992). Changes in the public sector: A review of recent “alternative” accounting research. *Accounting, Auditing & Accountability Journal*, 5(2), 3-31.
- Bryson, J. M. (2018). *Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement*: John Wiley & Sons.
- Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. *Management Accounting Research*, 11(1), 3-25.
- Burns, J., & Vaivio, J. (2001). Management accounting change. *Management Accounting Research*, 12(4), 389-402.
- Buzdar, F. H. (2020). Problems in implementation of PIFRA's new accounting model. *ECOSAI Circular*, 25(1), 18-29.
- Ceesay, I. B. (2004). *Public Financial Accountability in Pakistan: The Impact of PIFRA on Capacity*. Retrieved from Washington DC: <https://openknowledge.worldbank.org/handle/10986/9697>
- Chan, J. L., Jones, R. H., & Lüder, K. G. (1996). Modeling governmental accounting innovations: an assessment and future research directions. *Research in Governmental and Nonprofit Accounting*, 9, 1-19.
- Christensen, M. (2002). Accrual accounting in the public sector: the case of the New South Wales government. *Accounting History*, 7(2), 93-124.
- Creswell, J. W., & Plano Clark, V. L. (2011). Choosing a mixed methods design. *Designing and conducting mixed methods research*, 2, 53-106.

- Cumming, B. S. (1998). Innovation overview and future challenges. *European journal of innovation management*.
- Damanpour, F., & Schneider, M. (2006). Phases of the adoption of innovation in organizations: effects of environment, organization and top managers 1. *British journal of Management*, 17(3), 215-236.
- Denhardt, R. B., & Catlaw, T. J. (2014). *Theories of public organization*: Cengage Learning.
- Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation. *The Management of Organization*, 1(1), 167-188.
- Edwards-Schachter, M. (2018). The nature and variety of innovation. *International Journal of Innovation Studies*, 2(2), 65-79.
- Elahi, T. (2015). *The Project to Improve Financial Reporting and Auditing (PIFRA): Issues in the implementation of ERP in Public sector of Pakistan*. (PhD diss.), University of Essex, England, England.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4.
- Fleischman, R. K., Mills, P. A., & Tyson, T. N. (1996). A theoretical primer for evaluating and conducting historical research in accounting. *Accounting History*, 1(1), 55-75.
- George, J. M. (2007). 9 Creativity in organizations. *Academy of Management Annals*, 1(1), 439-477.
- Ghaffoori, A. (2016). The Role of Accounting Reform in Deterring Corruption Practices in the Public Sector: A Case Study in Kurdistan Region. *Journal of Business & Financial Affairs*, 5, 1-15.
- Gilberg, J. (1988). Managerial attitudes toward participative management programs: Myths and reality. *Public Personnel Management*, 17(2), 109-123.
- Godfrey, A. D., Devlin, P. J., & Merrouche, M. C. (2001). A diffusion-contingency model for government accounting innovations *International comparative issues in government accounting* (pp. 279-296): Springer.
- Gokten, S. (2017). *Accounting and corporate reporting: Today and tomorrow*: InTech Publishing.
- Goleman, D. (2017). *Leadership that gets results (Harvard business review classics)*: Harvard Business Press.
- GoP. (2018). Financial Accounting & Budgetry System (FABS). Retrieved from <https://fabs.gov.pk/>
- Haldma, T. (2004). *Development of the Estonian accounting system: a phased approach*. Paper presented at the Actual Problems of Accounting in Private and Public Sector. Proceedings of the Conference.

- Hartley, J. (2004). Case study research.
- Hartley, J. (2005). Innovation in governance and public services: Past and present. *Public money and management*, 25(1), 27-34.
- Hartley, J. (2014). New development: Eight and a half propositions to stimulate frugal innovation. *Public Money & Management*, 34(3), 227-232.
- Harun, H., & Robinson, P. (2010). The adoption of accrual accounting in the Indonesian public sector *Research in Accounting in Emerging Economies*: Emerald Group Publishing Limited.
- Hashim, A. (2014). *A Handbook on Financial Management Information Systems for Government: A Practitioners Guide for Setting Reform Priorities, Systems Design and Implementation*. Washington DC: International Bank for Reconstruction and Development /The World Bank.
- Hopper, T., & Bui, B. (2016). Has management accounting research been critical? *Management Accounting Research*, 31, 10-30.
- Jaruga, A., Nowak, W. A., & LisieckaZajac, B. (1998). Polish public sector accounting in transition: evidence from the mid 1990s. *Financial Accountability & Management*, 14(2), 105-122.
- Javed, M., & Zhuquan, W. (2018). Analysis of Accounting Reforms in the Public Sector of Pakistan and Adoption of Cash Basis IPSAS. *Universal Journal of Accounting and Finance*, 6(2), 47-53.
- Jorge, S., Nogueira, S. P., & Ribeiro, N. (2020). The institutionalization of public sector accounting reforms: the role of pilot entities. *Journal of Public Budgeting, Accounting & Financial Management*.
- Khalid, M. B. (2019). International Public Sector Accounting Standards and Quality of Financial Reporting in the Public Sector of Pakistan. *PIPFA Journal*, 24(2), 5-10.
- Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation implementation. *Academy of Management Review*, 21(4), 1055-1080.
- Kureishy, M. A. (1973). Reforms in Financial Management in Pakistan. *International Review of Administrative Sciences*, 39(3), 236-246.
- Laughlin, R. C. (1991). Environmental disturbances and organizational transitions and transformations: some alternative models. *Organization Studies*, 12(2), 209-232.
- Liguori, M. (2012). Radical change, accounting and public sector reforms: A comparison of Italian and Canadian municipalities. *Financial Accountability & Management*, 28(4), 437-463.

- Luder, K. (1992). A Contingency Model of Governmental Accounting Innovations in the Political-administrative Environment. *Research in Governmental and Nonprofit Accounting*, 7, 99-127.
- Luder, K. (2002). Research in comparative governmental accounting over the last decade: achievements and problems. In V. Montesinos & J. M. Vela (Eds.), *Innovations in Governmental Accounting* (pp. 1-21). New York: Springer.
- Lüder, K. (2002). Research in comparative governmental accounting over the last decade—achievements and problems— *Innovations in Governmental Accounting* (pp. 1-21): Springer.
- Malhotra, M., & Hinings, C. (2005). *Processes of radical organizational change: Transformation through sedimentation*. Paper presented at the First Organization Studies Summer Workshop on Theorizing Process in Organizational Research, Santorini.
- McLeod, R. H., & Harun, H. (2014). Public sector accounting reform at local government level in Indonesia. *Financial Accountability & Management*, 30(2), 238-258.
- Meyer, A. D., & Goes, J. B. (1988). Organizational assimilation of innovations: A multilevel contextual analysis. *Academy of Management Journal*, 31(4), 897-923.
- Meyers, D. C., Durlak, J. A., & Wandersman, A. (2012). The quality implementation framework: a synthesis of critical steps in the implementation process. *American journal of Community Psychology*, 50(3), 462-480.
- Monsen, N., & Nasi, S. (1998). The contingency model of governmental accounting innovations: a discussion. *European Accounting Review*, 7(2), 275-288.
- Nagendrakumar, N. (2020). Extending the institutional theory: public sector accounting and financial reporting perspectives, Sri Lanka. *International Journal on Governmental Financial Management*, 20(1), 1-19.
- Neves, F. R., & Gómez-Villegas, M. (2020). Public sector accounting reform in Latin America and Epistemic Communities: an institutional approach. *Revista de Administração Pública*, 54(1), 11-31.
- Patton, M. Q. (2014). *Qualitative Research & Evaluation Methods: Integrating Theory and Practice*: Sage Publications.
- Pierce, J. L., & Delbecq, A. L. (1977). Organization structure, individual attitudes and innovation. *Academy of Management Review*, 2(1), 27-37.
- Prakash, O. (2011). Challenges of state building in Pakistan in early years: Executive—Judiciary Nexus. *Proceedings of the Indian History Congress*, 72(2011), 1064-1073.
- Pratap, S., & Quintin, E. (2006). *The Informal Sector in Developing Countries: Output, Assets and Employment*: WIDER Research Paper.

- Previts, G. J., Parker, L. D., & Coffman, E. N. (1990). Accounting history: definition and relevance. *Abacus*, 26(1), 1-16.
- PwC. (1992). *The Diagnostic Study*. Retrieved from Islamabad:
- Rajin, D., Dzunic, M., & Radojevic, T. (2019). Accrual accounting and financial management in the public sector in developing countries. *Ekonomika preduzeca*, 67(7-8), 470-482.
- Rashman, L., Downe, J., & Hartley, J. (2005). Knowledge creation and transfer in the beacon scheme: Improving services through sharing good practice. *Local Government Studies*, 31(5), 683-700.
- Ridder, H. G., Bruns, H. J., & Spier, F. (2005). Analysis of public management change processes: the case of local government accounting reforms in Germany. *Public Administration*, 83(2), 443-471.
- Rogers, E. M. (1971). *Diffusion of Innovations* (2nd ed). New York: The Free Press.
- Romanelli, E., & Tushman, M. L. (1994). Organizational transformation as punctuated equilibrium: An empirical test. *Academy of Management Journal*, 37(5), 1141-1166.
- Rossi, N., & Trequattrini, R. (2011). IPSAS and accounting systems in the Italian public administrations: expected changes and implementation scenarios. *Journal of Modern Accounting and Auditing*, 7(2), 134.
- Sileyew, K. J. (2019). *Research design and methodology*: IntechOpen Rijeka.
- Swiatek, W. (2016). The impact of harmonization and standardization of accounting on information included in financial statements. *Zeszyty Naukowe Wyższej Szkoły Finansów i Prawa w Bielsku-Białej*, 20(4), 80-96.
- Tennent, J. (2008). *Guide to Financial Management* (Vol. 15). London, England: Profile Books Ltd.
- Tikk, J. (2010). Accounting changes in the public sector in Estonia. *Verklas: Teorija ir Praktika*(1), 77-85.
- Ullah, I., & Ali, A. (2022). Government accounting in Pakistan: Transition from a legacy system to the new accounting model. *Accounting History Review*, 32(2-3), 173-199.
- Upping, P., & Oliver, J. (2011). Accounting change model for the public sector: adapting Luder's model for developing countries. *International Review of Business Research Papers*, 7(1), 364-380.
- Wilson, E. R., Reck, J. L., Kattelus, S. C., & Robbins, W. A. (2010). Accounting for governmental and nonprofit entities. *Issues in Accounting Education*, 25(1), 176-177.

- World Bank. (2005). *Implementation Completion Report: Improvement to Financial Reporting and Auditing Project* (32561). Retrieved from Washington DC: <https://documents1.worldbank.org/curated/en/751481468087832698/text/325610rev0pdf.txt>
- Yin, R. (2002). *Case Study Research: Design and Methods* (3rd ed.). Sage Publications Inc.