ACCOUNTING AND FINANCE

Accounting Software, Digital Payments and Internal Control in Small Training Institutions in India: A Conceptual Framework with an Internship Illustration

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Published November 2026

Abstract

Like larger entities, small Indian training academies are involved in financial processes such as charging, receiving payments and expenditure. However, often these academies lack both good controls and good information systems. This research explores how common information systems, electronic funds transfer and partial automation can be used to improve financial information quality and organisational transparency within this type of entity.

Design/methodology/approach: Drawing on publicly available information about electronic funds transfer and academic articles on information systems, alongside theories of internal control and findings about occupational fraud, this paper explores how these may be applied. An example is provided by participant observation undertaken during an internship in an academy's finance department in Malappuram, Kerala. This highlights practical application of the above areas.

Findings: Combining these sources of information leads to a set of five hypotheses relating automation, electronic funds transfer, standardisation and staff ability to financial information quality, control effectiveness and transparency. Automation is suggested to be beneficial when combined with good standardisation and competent staff.

Originality: Information systems, internal control and electronic funds transfer are combined within this work and applied to a small and relatively unexplored area – training institutions. Furthermore, this research provides an established research template.

Limitations: There was no primary data gathered. Also, only one entity and one observer were analysed.

Keywords: UPI; Tally; information systems; internal control; small business; educational institutions; transparency

1 Introduction

Regardless of the size of an organisation, good quality financial information is key. Often, within smaller organisations, processes relating to financial data (including data entry, verification and reporting) are not formally documented, but are carried out by a small group of staff. Consequently, errors can therefore remain undetected for increased periods of time and also a manager may not be able to identify the origin of a specific piece of data.

There are two aspects which contribute to the relevance of this topic. Firstly, accounting software can now allow small businesses to effectively manage and report on their financial information without substantial expenditure (Nuraini et al., 2024). Secondly, digital methods of financial transaction are extremely popular in India. For example, in just October 2026, there were 25.47 billion transactions completed using the Unified Payments Interface (UPI) (Entrepreneur Staff, 2026). Overall then, small businesses can link their receipts to their financial information. The extent to which this is achieved depends on process, people and technology.

This paper explores:

- RQ1. How are internal controls, digital financial transactions and accounting software interlinked within a small training business?
- RQ2. In what situations is it probable that automating processes will enhance both transparency and data quality?
- RQ3. How might these links be investigated within small training businesses?

Three main contributions are provided. Firstly, it develops a framework including hypotheses for investigation. Secondly, it integrates three areas of research which tend to be analysed independently. Thirdly, it provides a practical example which demonstrates theoretical concepts.

2 Background and literature

Accounting information systems collate, categorise and report information. Information can then be utilised for multiple purposes having been inputted just once (Weygandt et al, 2018). Micro, small and medium sized businesses have seen benefits from implementing such systems in terms of both efficiency and sustainability. Nevertheless, there are issues associated with implementation (Nuraini et al, 2024). There is inconclusive evidence regarding technology usage amongst small businesses in India. A survey of 60 small business entities in Gwalior identified that 56 of these utilised accounting information technology (Banerjee & Saraswat, 2022). By contrast, a study of top executives in small and medium sized businesses in central Madhya Pradesh revealed that there was little or light usage of information technology (Tomar, 2017). Although these two studies differ in their method, population and topic, they do not conflict. Rather, they indicate that technology usage will depend on the situation.

Both the ‘decision-maker’, ‘technology’, ‘organisation’ and ‘environment’ have been analysed within an integrated model to understand why technology is implemented in small businesses (Thong, 1999). Further, an integrated information technology adoption framework for small and medium sized businesses was created (Nguyen, 2009). Although these studies analyse adoption behaviour, they provide limited insight into what occurs after implementation. For instance, there is limited information regarding whether book-keeping accuracy, and therefore auditability, is enhanced following implementation. This paper analyses precisely this area.

2.1 Internal control

According to the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013), internal control is the process undertaken by an entity’s management and employees to ensure that reasonable confidence can be placed in meeting an entity’s operational, reporting and compliance related goals. The framework comprises of five elements – control environment, risk evaluation, control activities, information and communication and monitoring. Common control activities

adopted within accounting relate to defining roles, division of labour, record-keeping and independent verification. Reconciliation is also a frequently applied control activity (Weygandt et al, 2018).

2.2 Digital payments and auditability

India's Unified Payments Interface (UPI) facilitated a new high of 25.47 billion transactions in October 2026, equating to transactions of INR 31.53 lakh crore. This represented a 23% and 16% increase, respectively, compared to October of the previous year (Entrepreneur Staff, 2026). The National Payments Corporation of India (NPCI) provides regular UPI information bulletins (NPCI, n.d.). Typically, where an entity earns fees or revenue from sales, digital payment will contain a payment reference which can be cross-referenced with the relevant invoice or fee. As noted in this investigation, auditability can be enhanced by an entity if it consistently logs such references and compares them with its books of account.

2.3 Research gap

Whilst the literature identifies reasons for small business implementation of accounting information technology and details the consequences of inadequate internal control, it also outlines the increasing use of digital payments. However, it provides scant analysis of how these areas interact within small training entities. Further, there is limited discussion around situations in which automated book-keeping is not simply expedited, but is in fact enhanced. Section 5 of this paper responds to this research gap via the production of a model.

3 Approach

As well as theory, there is one practical example. Firstly, accounting information systems, control and electronic commerce literature was identified using academic and industry databases. Secondly, key points were identified and analysed across sources. Thirdly, theory and theories were then formulated. Only reliable and pertinent literature was analysed. Information is presented exactly as it is within sources. Where figures are provided relating to UPIs, these are from a media article which mentions NPCI data – this has been noted so that readers can trace back to the original data source if they wish.

My practical example is based on personal notes from my placement as a Finance Intern at Oil Bright Academy, Malappuram, Kerala (10 June-15 July 2026). Information has been obtained from my 4 week internship log. There were no interviews or questionnaires undertaken. Furthermore, no sensitive financial information has been disclosed. This practical example is for explanatory purposes only and is not for testing. It should also be recognised that my largely supportive and limited involvement in the situation does affect the extent to which I can demonstrate issues.

4 Practical example

Whilst on placement I supported the finance department of the institute. My responsibilities encompassed: familiarisation with and observation of routine financial activity; filing and verification of information; collation of expenditure information and filing relevant material for subsequent monthly updating; support with collation and production of summary and final accounts; and analysis of both income and expenditure statements. In addition, I participated in meetings relating

to financial strategy and process enhancement. The institute recorded financial information using Tally. I also provided support for electronic filing and spreadsheet creation.

There are 3 aspects of the example which connect to the model. Firstly, paper information is central. As with the verification process mentioned in COSO (2013), activities were initiated by paper and were subsequently verified against it. Secondly, people's competence is an influencing factor. My lack of computer and filing expertise affected my efficiency. In addition, I had to manage my time effectively in order to meet report submission dates. Finally, financial process enhancement meetings emphasised 3 areas for development: enhanced book-keeping; increased openness; and further automation of financial processes. However, no official conclusion was reached on these points during my placement. Therefore, the following theories represent my own views and are not necessarily representative of the institute's plans. Neither is any judgement made regarding the efficacy of the institute's current procedures.

5 Concepts and hypotheses

This model has four antecedent and two outcome concepts. Below are concept definitions specific to this research.

Table 1. Concepts within the model

Construct	Working definition	Link to the case
Process standardisation (PS)	Use of common categories, naming, filing, checklists and defined responsibilities	Document organisation and verification routines
Payment referencing (PR)	Recording the reference of each digital payment against the corresponding fee or sales record	Matching receipts with records
Selective automation (SA)	Use of software features and templates to reduce manual entry, matching and reporting	Tally and spreadsheet use; automation discussed
User capability (UC)	Users' skill with the software and with data handling, including training received	Unfamiliar software; handling a large set of files
Record quality (RQ)	Accuracy, completeness, timeliness and traceability of financial records	Verification and reconciliation tasks
Transparency and control effectiveness (TC)	Extent to which authorised reviewers can trace figures to sources and controls operate as intended	Reports to management; control activities

5.1 Hypotheses

H1. Process standardisation will improve record quality. Uniform categorisation, cross-referencing and storage all limit ambiguity and facilitate error detection (Weygandt et al, 2018).

H2. Cross-referencing will also increase an organisation's record quality traceability if this is standardised. Where cross-referencing is absent or inconsistent, value is not greatly added by matching functions.

H3. Partial automation will improve record timeliness. However, its impact upon record accuracy is dependent on process standardisation and user ability. Where processes are not standardised, automation may actually accelerate the creation of errors.

H4. User ability acts as a moderator variable to the automation – record quality connection. This relationship is enhanced where individuals have received training in both how to use software and manage data.

H5. Good quality records will improve transparency and control efficiency; good and traceable records enable controls (for example, verification and re-conciliation) to function effectively (COSO, 2013).

Table 2. Summary of hypotheses

No.	Relationship	Condition or moderator
H1	PS → RQ (+)	None stated
H2	PR → traceability within RQ (+)	Consistent recording of references
H3	SA → timeliness (+); SA → accuracy (depends)	PS and UC
H4	UC moderates SA → RQ	Training in software and data handling
H5	RQ → TC (+)	Controls present and followed

5.2 Boundary conditions

It is assumed within the model that the business is of limited size so that a small team can carry out financial functions. Furthermore, the organisation either currently or will implement book-keeping software and will receive some payments electronically. Factors external to the model such as data security, expense and management support will influence the sustainability of any improvements. Whilst offering benefits through automation, there are also associated issues relating to its appropriate set up and control of access. These considerations should be analysed carefully before implementing automation.

6 Discussion

6.1 Practice implications

According to the model, small businesses will most likely first agree processes, codes and job descriptions (H1), then agree on consistent ways to identify sources of payments (H2) and finally will automate certain aspects of their business. They will also provide employees with training (H4). This reflects the phased way in which the case study undertook implementation. Initially, cost-effective standardisation is implemented and then areas of highest time saving are automated. Further, good data quality is integral to good control processes (COSO, 2013; Weygandt et al., 2018). Both source document comparison and bank and payments reconciliation are only as reliable as the data being analysed. Reports can be improved in terms of legibility if all numerical values are attributed to a source. However, confidentiality must also be respected and so only relevant people should be permitted to view information.

6.2 Educational implications

As well as providing practical experience, an internship within a finance section of a business enables students to observe the interaction between the accounting cycle (Weygandt et al, 2018) and actual source documentation. It can also highlight areas where individuals lack skills, for example relating to computer and data analysis – aspects which are not shown so well in educational settings. Employers

could therefore provide interns with brief computerised book-keeping training and establish a basic weekly rota. This would be of assistance to both the intern and the business.

6.3 Research implications

Whilst previous adoption research (Thong, 1999; Nguyen, 2009; Banerjee & Saraswat, 2022; Tomar, 2017) predominantly centres on examining whether or not a company adopts technology, the model encourages further investigation into the effects of data quality and control. Rather than using adoption as a proxy for positive impact, research should directly analyse these areas.

7 Method

Cross-sectional surveys can be used to test the hypotheses. Small coaching centres in a defined area could be included and the finance officer or owner could act as respondents. Constructs in Table 1 could be quantified using validated multi-item instruments (see literature). A pilot should also be undertaken. Quantitative data relating to recording and payment practices could include how promptly month-end accounts are completed, the percentage of invoices that are supported by a record or payment reference, and post-audit amendment rates. Records can also be reviewed (where allowed) to further validate quantitative data. Regression and/or structural equation modelling can be used to analyse the data and test H1 to H3 and H5. Moderation analysis can then be employed to test H4. Undertaking a small qualitative study with centres will further assist in analysing findings. Appropriate sample size, sampling strategy and instruments for data collection should be identified following the pilot. No data has been gathered for this paper.

8 Limitations

This is a largely theoretical paper and so the hypotheses have not been practically tested. The illustrative example is based on data from just one organisation and includes only one assistant observer; furthermore, no financial information is revealed. Some statistics, notably those pertaining to UPI in October 2026, are sourced from media coverage of NPCI data and should therefore be compared with the main data set when this becomes available. Fraud statistics relate to global occurrences and may not therefore be representative of smaller Indian bodies. Finally, although efforts were made to conduct a comprehensive literature search, it is possible that important work was overlooked.

9 Conclusion

Whilst small coaching businesses can implement accounting and electronic payment technologies to improve the accuracy, and thereby transparency of their data, the extent to which this is effective will be influenced by both the process of implementation and the individuals managing the business. The suggested approach for optimising effectiveness, is to first establish common procedures and payment terminology. Then additional benefits can be obtained using automation. Finally, an individual's skills will affect the degree to which technology is effective. Undertaking a survey of small coaching businesses would therefore allow analysis of their data management and highlight areas requiring further management focus.

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