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THE STATE OF DIGITALISATION OF ACCOUNTING IN PRIVATE HIGHER EDUCATION INSTITUTIONS AND ITS INFORMATION EFFICIENCY

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Abstract

The thesis examines the state of digitalisation of accounting in private higher education institutions and its information efficiency. Four levels of digital maturity are identified, and it is substantiated that information efficiency depends on the integration of the accounting system with the student information system and on shared analytical coding rather than on the degree of software automation as such. A set of observable indicators for measuring information efficiency is proposed.

Keywords: Digitalisation, information efficiency, system integration, student information system, data duplication, traceability, digital maturity, data ownership.

Digitalisation in accounting is frequently equated with the installation of accounting software. Practice in private higher education institutions shows that this equation does not hold: institutions operating modern accounting packages may still produce reports assembled manually in spreadsheets. The decisive factor turns out to be integration rather than automation as such.

The characteristic configuration. The institution operates an accounting package that records transactions and produces the statutory statements.



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Separately, it operates a student information system holding contracts, enrolment orders, academic leave and transfer records, and payment histories. The two systems are not connected. Consequently the same contract exists twice — once as an academic record and once as an accounting entry — and reconciling them is a manual task performed at each reporting date. In some institutions a third layer exists: spreadsheets maintained by the finance department to produce information that neither system provides, such as revenue by field of education. The consequences are measurable. Revenue cannot be recognised over the period of delivery without knowing the academic calendar and enrolment status held in the other system. Receivables cannot be aged by student without matching the two registers. Contract modifications — transfers, academic leave, exclusion — are recorded in the academic system but reach the accounting records with delay or not at all, so that revenue continues to be recognised for students who have already left.

Levels of digital maturity. Four levels may be distinguished (Table 1).

Table 1. Levels of digital maturity of accounting in private higher education institutions

Level	Characteristics	Information limitation
1. Fragmented	Accounting software plus spreadsheets; academic data kept separately	Reports assembled manually; no traceability
2. Automated but isolated	Full accounting automation; no link to the student information system	Contract data duplicated; recognition delayed
3. Integrated	Automatic exchange of contract and enrolment data	Revenue recognised over the period; receivables aged automatically
4. Analytically integrated	Common analytical coding across systems; unified reference structures	Reporting by field of education, service type and funding source

Source: developed by the author.



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The transition between levels two and three is decisive for information efficiency. It is at this point that the contract identifier becomes shared between the systems, which makes traceability possible: any reported figure can be traced to the contract, the enrolment order and the payment document that produced it. The transition between levels three and four is what converts the accounting system from a compliance instrument into a management information source, since it is shared analytical coding that allows results to be presented by field of education and by funding source.

Measuring information efficiency. Information efficiency should be assessed through indicators that are observable without complex measurement (Table 2).

Table 2. Indicators of information efficiency and their interpretation

Indicator	What it measures	Direction of improvement
Number of transactions entered manually more than once	Extent of data duplication	Decrease
Time required to prepare the periodic reporting package	Responsiveness of the system	Decrease
Volume of discrepancies identified during reconciliation	Consistency between systems	Decrease
Share of report positions produced automatically	Degree of genuine automation	Increase
Time elapsed between an academic event and its accounting reflection	Timeliness of integration	Decrease
Share of reported figures traceable to a source document	Verifiability	Increase

Source: developed by the author.



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These indicators translate the abstract notion of digital maturity into measurable terms and allow progress to be tracked across reporting periods. Importantly, several of them can be computed from data the institution already holds, which makes the assessment inexpensive.

Organisational preconditions

Integration is not primarily a technical project. It redistributes responsibility for data: the academic office becomes the owner of contract and enrolment records on which accounting entries depend, and its errors become accounting errors. This requires formal assignment of data ownership, agreed data entry deadlines and an escalation procedure for disputed records. Where such arrangements are absent, integration transfers problems faster rather than solving them.

A second precondition concerns data quality at the point of entry. Integration transfers errors as well as data: if enrolment records are inaccurate, the accounting records inherit the inaccuracy without any intervening check. Input controls — mandatory attributes, validation of contract terms, restriction of retroactive editing — therefore become a condition of integration rather than a subsequent improvement.

Limitations

Two cautions should be noted. First, higher levels of maturity are not equally justified for all institutions: for a small institution with few programmes, the cost of full analytical integration may exceed the value of the additional information. Second, the indicators proposed measure the efficiency of the information process, not the correctness of the accounting judgements applied within it; a fully integrated system will produce timely and traceable figures based on an incorrect recognition policy just as reliably as on a correct one.



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Conclusion

The information efficiency of accounting in private higher education institutions depends on the integration of the accounting system with the student information system and on shared analytical coding, rather than on the degree of software automation in isolation. The transition from an automated but isolated system to an integrated one is the point at which traceability and period-based revenue recognition become achievable.

Practical recommendations: establish the contract identifier as a shared key between the systems; assign formal ownership of contract and enrolment data with agreed entry deadlines; implement data quality controls at the point of entry as a precondition of integration; measure information efficiency through observable indicators such as reporting cycle time, duplicate entry volume and traceability share; and move analytical coding into the shared layer so that reporting dimensions are consistent across systems.

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