

THE APPLICATION OF DIGITAL IMAGING TECHNOLOGY IN THE UNIVERSITY FINANCIAL REIMBURSEMENT PROCESS: A CASE STUDY OF UNIVERSITY N

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Abstract: Faculty members and students at many newly established universities often find the reimbursement process confusing, and repeated errors end up slowing down the entire procedure. Drawing on the actual situation at University N, this study looks closely at where its financial reimbursement system falls short and proposes a set of concrete measures to improve it, in the hope of offering a workable reference for the digital transformation of reimbursement work at similar institutions. The core idea is to use AI video generation tools to produce short demonstration clips of the reimbursement workflow, and to examine whether artificial intelligence and digital imaging technologies can make university reimbursement more intuitive, more carefully managed, and more intelligent. The findings indicate that these technologies do help: they raise reimbursement efficiency, bring down operating costs, and strengthen the control of compliance risks.

Keywords: Digital imaging; Financial reimbursement; Newly established private universities

1 INTRODUCTION

1.1 Lagging Process Construction in Newly Established Private Universities and the Need for Standardization of Reimbursement

Newly established private universities have a short history, limited resources, and management systems that are still taking shape. Under these conditions, their financial procedures—particularly reimbursement—tend to lag behind what the institutions actually need. Judging from the situation of universities of this kind, the problem is not unique to this institution; a considerable number of other private universities in their founding years have faced comparable difficulties, and it directly undermines both the standardization of financial operations and the safety of school funds.

The first problem is that many private universities try to “board the bus first and buy the ticket later.” In the early years, the common strategy is to run the school first and standardize later: nearly all the limited manpower, money, and materials go into teaching facilities and faculty recruitment, because these determine whether the school can survive and grow. Internal management systems, including financial ones, are treated as secondary concerns. The reimbursement process is therefore patched up while it is already in use.

A second factor makes things worse: staffing is thin and professional expertise is uneven. Because budgets are tight, one staff member often handles several posts at once. Digital imaging technology offers a way out of this dilemma—standardized scanning, online circulation, and automatic verification can take over much of the repetitive manual work, so that the process no longer depends so heavily on personal experience. Even with a small team, the school can still keep the process uniform and skillful, which to some extent makes up for the lack of hands and skills[1].

These problems are felt at several levels. In the short run, the reimbursement cycle gets stretched out, faculty and students are left with a poor experience, and their frustration with the finance office builds up. Over a slightly longer horizon, sloppy document management and missing approval records plant hidden risks for future financial audits and tax checks. And in the long run, a persistently underdeveloped process restricts how far the school’s internal control system can go, and may even open the door to fund misappropriation. It is fair to say that tackling the lagging, irregular reimbursement process has become one of the key tasks in the financial management reform of newly established private universities.

1.2 Trivial Daily Work of Financial Staff and the Absence of Financial Work Promotion

Financial staff in these universities are kept busy with work that is both heavy and fragmented. What wears them down most is the constant stream of questions about reimbursement procedures, on top of the rejected forms and supplementary submissions that result from unclear rules[2]. Meanwhile, the finance department barely promotes its own policies: most faculty and students know little about the regulations, and a vicious circle takes shape—staff members are worn out from explaining, while faculty and students keep making trips that could have been avoided.

Looking at how financial work is promoted, a clear “promotion gap” exists in most newly established private universities. The issue is not that no policy documents have been issued; rather, the way these policies are communicated—the channels, the format, the reach—fails to get through to faculty and students in a way they can actually absorb. In most cases, the policies appear as long, dense texts on the official website or the internal office platform. The wording is highly technical, the structure is complicated, and ordinary readers are put off before they even start; even those who do make the effort find it hard to pick out the key points quickly.

Offline training and lectures, for their part, allow face-to-face communication, but they are constrained by venues, schedules, and available staff, so coverage stays limited and such sessions are hard to hold on a regular basis. University N is a case in point: since it was founded in 2020, it has organized only one offline reimbursement training session for the whole staff, and that was in 2024. The passive way of spreading information clearly does not work. A considerable share of faculty and students still do not understand the basic requirements of reimbursement, and they end up learning by asking questions at the counter while filling in their forms.

The consequences cut both ways. Faculty and students waste time on repeated visits and questions, come away with a negative impression of the finance office, and their dissatisfaction grows. Financial staff, in turn, are buried under repetitive inquiries and rejected applications, and many begin to burn out. The longer this goes on, the wider the gap between the finance department and the rest of the campus becomes; the credibility of financial work erodes, and the efficiency of the whole institution suffers[3].

To genuinely raise reimbursement efficiency and improve the experience of faculty and students, the promotion gap has to be tackled at its root, and more efficient, more intuitive, and more accessible ways of explaining the financial process must be found.

2 MOTIVATIONS FOR DIGITAL IMAGING TECHNOLOGY DRIVING OPTIMIZATION OF UNIVERSITY FINANCIAL REIMBURSEMENT

2.1 Cognitive Motivation: AIGC Visualization Lowers the Threshold for Process Understanding

The efficiency of financial management depends on two things: whether the process is well designed, and whether faculty and students can actually understand and follow it. In newly established private universities, the second condition is often the bigger problem—the financial process is simply too hard to grasp, and this has become a major obstacle to better management.

Traditional policy communication relies on long text documents packed with provisions and jargon. Ordinary faculty and students rarely have the patience—or the background—to work through them. A reimbursement form alone involves funding sources, budget categories, a list of attachments, and more; one mistake at any step and the form is sent back. Most people learn the hard way: they make an error, get rejected, correct it, and try again. It is no wonder that error rates, rejection rates, and repeat inquiries stay persistently high[3].

Digital imaging technology—above all, AI-generated instructional videos—can bring that threshold down considerably. A video can show the process in motion, present it visually, and be replayed as often as the viewer wants. Schools can produce short guides such as “Understanding the Travel Expense Reimbursement Process in 2 Minutes” or “Demonstration of Filling Out a Reimbursement Form,” turning abstract rules into visual walkthroughs with scenario reenactments and screen recordings. Once faculty and students have watched them, they form a clear picture of what to do, and errors fall sharply. AIGC also makes such videos much cheaper to produce than conventional promotional material: AI dubbing and digital human narration allow the school to generate good-quality videos quickly and refresh them whenever needed, cutting both costs and turnaround time.

2.2 Human Resource Motivation: Reducing Repetitive Inquiries to Release the Effectiveness of Financial Human Resources

Whether financial staff can concentrate their energy on high-value work has a direct bearing on the overall quality of financial management[4]—and in newly established private universities, this allocation is often badly skewed. Finance departments are understaffed because of budget constraints, and holding multiple posts is the norm rather than the exception. Yet a large share of working time goes to answering the same basic reimbursement questions over and over. The work is repetitive and requires little skill, but it eats up scarce human resources that could otherwise go to budget analysis, internal control, and other tasks that really matter[5].

Once AIGC tools are promoted on campus, most routine questions can be answered by the videos themselves. Financial staff are released from the treadmill of repetitive inquiries and can redirect their time and attention to financial analysis, budget management, and process optimization. For a university that is short of hands, the investment in AI videos is modest compared with traditional production, while the manpower it frees up is far from trivial—the input-output ratio is very favorable.

3 IMPLEMENTATION PATHWAYS FOR OPTIMIZING THE FINANCIAL REIMBURSEMENT PROCESS IN PRIVATE UNIVERSITIES UNDER DIGITAL IMAGING TECHNOLOGY

Putting digital imaging technology to work in a university’s reimbursement process means moving from design to practice. Technology alone is not enough: capacity building and continuous system improvement have to go hand in

hand with the technical rollout. For newly established private universities, which have few resources and little experience to fall back on, the path chosen must be pragmatic and sustainable. The following three steps describe how the optimization can be carried out.

3.1 Developing AI-Guided Videos to Reduce User Learning and Operational Costs

Operational mistakes and rejected applications cost the finance office a great deal of time in explanation and guidance. Generative AI offers a practical remedy: schools can produce AI-guided videos that explain the process in an intuitive, easy-to-access way, so that both learning costs and operational costs are brought down at the root.

AI-guided videos should be produced with four principles in mind: short, plain, fast, and accurate. “Short” means keeping each clip within one to three minutes, so that it fits into the fragmented attention spans of today’s viewers and can be watched in one sitting. “Plain” means everyday language: financial jargon should be avoided wherever possible, so that faculty and students from any discipline can follow without difficulty. “Fast” means a brisk pace and just the right density of information—no padding, with the essentials delivered in the shortest time. “Accurate” means the content has to be correct and unambiguous, so that simplification never turns into distortion or the omission of something important.

University N plans its promotional videos to cover the reimbursement process from start to finish, building up a small library of clips in four categories. The first category gives an overview—“Complete Guide to the Reimbursement Process,” for instance—so that viewers can see the whole picture before they begin. The second demonstrates specific operations step by step, with titles like “How to Fill Out a Reimbursement Form” and “How to Attach Invoices.” The third answers the questions that come up most often, such as “Top Ten Reasons for Rejection and How to Avoid Them” or “What to Do If an Invoice Is Lost.” The fourth interprets policies, including “Interpretation of the Latest Travel Expense Regulations” and “Use of Research Funds,” helping users understand what the financial rules actually require.

AI also cuts the cost and lead time of production itself. A conventional video calls for script writing, a professional crew, scene setup, editing and color grading, and often a finance staff member in front of the camera—expensive, slow, and disruptive to the office. AI tools remove most of these bottlenecks. A large language model can turn the reimbursement workflow into a clear script; text-to-image and image-to-video generation handle the visuals; AI dubbing converts the script into natural, fluent narration with a choice of voices and speaking rates; and a digital human can serve as the presenter, so no real person needs to appear on screen. What the school has to invest is mainly a small team that decides on topics, checks the policy details, and reviews the final content—and a batch of good-quality guides can be ready in a fairly short time.

Video distribution channels should be diversified and convenient. It is recommended to integrate the videos into the homepage of the financial reimbursement system or the reimbursement form submission page, allowing users to click and watch at any time before performing operations. At the same time, videos should be published simultaneously on the school’s WeChat official account, official website, and other relevant pages, enabling users to access them anytime via their mobile phones. Schools with the necessary conditions can also set up displays in the reimbursement hall to loop the guidance videos, allowing faculty and students waiting for reimbursement to obtain useful information while queuing[6].

The effectiveness of guidance videos needs to be evaluated and optimized through data. Schools can record behavioral data on faculty and students’ video viewing in the system and conduct correlation analyses with reimbursement error rates and rejection rates. If it is found that after viewing a certain type of video, the error rate remains high, this indicates that the content or presentation of that video has room for optimization. Through continuous data feedback and iterative improvement, the guidance videos will increasingly meet the needs of faculty and students with greater precision.

For newly established private universities, AI-guided videos represent a cost-effective method of process promotion. Such schools typically lack professional training teams and adequate training budgets. Traditional offline training is costly and limited in coverage. In contrast, AI video production requires little investment, spreads quickly, and is reusable, enabling coverage of all faculty and students in a short period, and content can be updated at any time according to process adjustments, offering flexibility and sustainability far superior to traditional methods.

3.2 Conducting Tiered Digital Reimbursement Training for Faculty, Students, and Financial Staff

A reimbursement system works only as well as the people using it understand and operate it. At newly established private universities, faculty and students differ widely in their financial knowledge, and the digital skills of finance staff are uneven too. Training therefore has to be tiered—matched to what each group actually needs—so that everyone is able to use the system, and use it correctly[7].

For faculty and students, the goal of training is simple: get up to speed quickly, fill in forms correctly, and make few mistakes. They are the ones who actually submit reimbursements, so their skill level shows up directly in efficiency and error statistics. Most newly established private universities do not yet have digital reimbursement platforms, which means the training has to concentrate on the concrete steps of submitting an application—what types of reimbursement exist, how to fill in the form, how to attach and fold invoices, how to track approval progress, and how to supply extra materials when a form is returned. Where an online platform does exist, uploading documents and using the online system should receive equal attention. The recommended format is “video self-study first, on-site help as backup”:

standard operations are recorded into one-to-three-minute clips and placed on the official website and the WeChat official account, so that anyone can look them up at any time. In the early period after the videos or the system go live, the finance department should also set up a help desk in the reimbursement hall, where staff guide users through their first applications until everyone has had time to adapt.

Financial staff need to go further than “knowing how to operate the system”; they are the ones who manage the process rules and enforce the review standards. Their training should therefore be more systematic and deeper than that of ordinary users. Where reimbursement is still done offline, the emphasis falls on reimbursement categories, procedures, and service awareness. Where it has moved online, the school can combine “inviting experts in” with “sending people out”: system suppliers’ technicians can be brought in for hands-on training, while key staff visit peer institutions to study their practices[8]. Once the system is in operation, the finance team should keep learning on a fixed rhythm—weekly reviews of business cases, monthly sessions for skill upgrading—so that competence grows through continuous use.

For approving leaders, the aim is “approve anywhere, approve anytime, with no fuss.” The approval link sets the pace for the whole reimbursement cycle. If leaders cannot handle the mobile interface, or worry about whether online approval is secure and legally valid, the speed advantage of the online process is lost. Training for this group should therefore center on the phone-based approval workflow—viewing image attachments, signing opinions, checking history—so that leaders feel the convenience directly. Security assurances should also be spelled out clearly, so that doubts are put to rest and leaders use the system willingly and regularly.

3.3 Regularly Iterating the Imaging System and Intelligent Review Rules

Producing the videos is not the end of the work. Policies change, processes are adjusted, and systems are upgraded; if the videos stay as they are, they may start to mislead viewers and actually cause the very errors and rejections they were meant to prevent. A dynamic update mechanism is therefore necessary, so that the videos always match current reality and keep doing their job of lowering the learning threshold. To begin with, clear triggers for updating should be defined. When the state or the locality introduces new reimbursement policies—a revised travel expense standard, say, or a new fund management rule—the policy interpretation videos must be refreshed before the new policy takes effect. When the school’s own process or approval authority changes, the overview and demonstration videos should be updated within seven working days. And when the imaging system itself is upgraded, with a new interface or different steps, the relevant demonstration clips have to be re-recorded without delay. To keep this work on schedule, the finance department should assign someone to watch for policy and process changes and start the update procedure as soon as one is spotted.

User feedback is the second driver of improvement. Faculty and students are the best judges of whether a video is clear, whether it helps, and what is missing from it. Schools should put an easy-to-find feedback button on the video pages and collect comments on clarity, usefulness, and suggestions for change. Financial staff can help too: the questions that keep coming up at the counter are a reliable signal. If a certain issue keeps generating inquiries even though the relevant video already covers it, the video’s wording or presentation is probably not doing its job and needs to be reworked.

AI also keeps the cost of iteration low. If every update meant shooting and editing from scratch, the workload would quickly become unbearable. With AI tools, the cycle is much cheaper: dubbing can be regenerated from a revised script in minutes, the same digital human avatar can be reused with new narration, and where only small details change—a policy standard here, a figure there—the video can be patched segment by segment instead of being remade. One practical tip deserves emphasis: keep the editing timeline files, so that any section can be modified quickly when needed.

Finally, version management should be put in place. Every time a video is updated, the system keeps the previous version and records the date, the reason, and a version number. Users see the latest version by default, but anyone who needs to check what the rule was at an earlier date—for example, to verify whether a past reimbursement met the policy in force at the time—can consult the archived copies. This makes the evolution of the rules transparent to users and gives auditors and inspectors a clear trail to follow.

In summary, the dynamic update and iteration of AI-guided videos are crucial for maintaining the continued effectiveness of the digital imaging-based reimbursement system. For newly established private universities, traditional paper-based promotional materials require re-typesetting, reprinting, and redistribution when updated. In comparison, AI video iteration offers significant advantages in timeliness, convenience, and cost control. Schools should fully leverage this technological dividend, incorporating video updates into daily management processes to ensure that the guidance videos always “speak correctly, explain clearly, and are used accurately.”

4 CONCLUSION

At bottom, applying digital imaging technology to university reimbursement is a way of using technical means to make up for the management weaknesses typical of an institution in its founding years. Newly established private universities lag behind in process standardization and staffing, but digital imaging gives them a chance to overtake: with visual promotion, the reimbursement process can be kept on a standardized track at a modest cost in human resources. The experience of University N bears this out. AI-guided videos, the most representative application, lower the barrier for faculty and students, relieve financial staff of endless repetitive explanations, and—through continuous video

iteration—push the reimbursement process itself to improve. Technology and management thus reinforce each other in a virtuous cycle.

None of this happens overnight. Whether the technology delivers its promised benefits depends on supporting measures moving in step: institutional arrangements, personnel training, and continuous system iteration. Newly established private universities should start from their own conditions, roll the changes out in stages, and keep adjusting as they go. With technology and management upgrading each other, they can gradually put in place a reimbursement system that is standardized, efficient, and sustainable—a solid financial foundation for the institution's healthy operation and long-term growth.

COMPETING INTERESTS

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