

Higher Education Commission(HEC)



Facilitating Higher Education in Real-time

QUICK FACTS

Company

- Higher Education Commission (HEC)
- Following the passage of the HEC Ordinance in 2002, the commission was established
- Headed by Dr. Javaid Laghari, Chairman, HEC
- Operational from 200 diversified geographical locations
- 134 colleges/universities nation-wide are regulated by the HEC
- Interacts with half-a-million students enrolled in colleges/universities across the country
- Responsible for the future of 30 million people within the age cohort of 17-23
- Allotted Rs. 42 billion annually by the GoP for funding scholarships and research grants

Challenges and Opportunities

- An IT-revamp starting with computerization of all locations
- Accuracy of data
- Approval and flow of funds in an efficient and traceable manner
- Impromptu presence of facts-on-fingertips as needed
- Absence of interactive online portal
- Resistance to change



Implementation Highlights

- Implementation was executed on an Accelerated SAP (ASAP) Methodology
- Five-step process was followed: Project Preparation, Business Blueprint Stage, the Realization Stage, Final Preparation and Go-Live
- M/s Siemens Pakistan Engineering Company was contracted in January 2007 following a technical appraisal of 19 contenders
- Soft launch of SAP ERP took place in March 2008
- Functionalities of SAP ERP modules were detailed by the HEC Business Automation System (BAS) team by Siemens Consultants
- An in-house core team of experts from core departments at the HEC were extended professional-level training on SAP
- With the first phase of implementation completed, on-schedule next is SAP Workflows, Business Intelligence and a Dashboard

Objectives

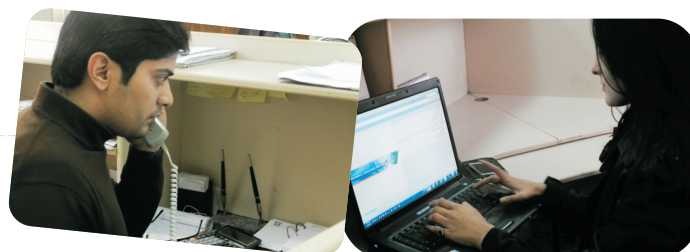
- Robust financial management system was needed given a stringent audit environment
- The IT team spent two years over an in-house Financial Management System
- An incompetent Financial Management System developed in-house had the commission opt for ERP

Benefits

- In a synchronized working environment, mistakes were quite easy to detect
- Prior to implementation of SAP, the software/hardware in place supported stand-alone work
- A post-SAP environment made possible an integrated workflow with a larger level of monitoring and collaboration
- A web-portal in place eased the attestation process for students, and filing/sorting of scholarship applicants

Why SAP

- Recognized by Fortune Magazine as the world's leading independent business software provider
- SAP ERP had previously been implemented successfully in various other large-scale public-sector set-ups. PIFRA(Pakistan Improvement to Financial Reporting and Auditing) being the most prominent one



Higher Education Commission

Siemens Pakistan Sets Off an ERP Go-Live at the Higher Education Commission

Replacing the University Grant Commission in 2002, the Higher Education Commission (HEC) came together as an authority body devoted to the cause of uplifting the existing higher-education institutions, development of new ones and degree recognition through a sufficing higher education policy. The commission was set-up following an enactment of the Higher Education Commission Ordinance 2002. Headed presently by Dr. Javaid Laghari, Chairman, HEC, the institution's modus operandi encompasses faculty development, curriculum update, infrastructure development of colleges/universities, grant disbursement and candidate appraisal for scholarships (foreign/indigenous) and travel, industry-academia initiatives and development of technology parks.

Given its role play in building a par-quality education environment in Pakistan, the HEC can be equated with the Ministry of Higher Education with a private-sector-like organizational structure. As Sohail Naqvi, the Chief Executive Officer, HEC explains, "HEC's purview encompasses all these activities, as all of these play a significant role in shaping a

student's academic life."

HEC has offices in all provincial capitals. In Islamabad only, the workforce employed is close to a thousand that adds up to a large number of human resources employed across all locations of the HEC. That is where the challenge lies. As would be the case with any other large organization with a vast human resource base, the HEC needed to be an IT-savvy organization to be able to serve the purpose for which the authority body had come together. After all, the commission's operational scope embraces 134 member institutions. It oversees the academic whereabouts of approximately half a million students enrolled in colleges/universities nationwide, that are only proportionate to the 30 million or so that fall within the age cohort of 17-23 which makes them possible candidates for scholarships. Hence, the role of IT in ensuring a smooth execution of all of the above is only the more critical. Keeping the challenges in mind, the first-ever IT Project approved by the authority body was an IT-Revamp of all institutions, centers and chairs falling with the HEC's domain. The HEC is currently functional from 200 diversified geographical locations.

Energizing Efficiency Through the Organizational Machinery :

Taking the IT-Revamp Project off-ground, the authority body opted for a computerization of all the locations the HEC is operational from. This was done to spin-off an integrated operational environment that can be easily monitored for any inefficiency and relied upon for release of accurate data when and as needed. As Sohail Naqvi proudly claims, "There was a time when the HEC only had 5-10 stand-alone computers. Today, the commission's offices alone operate on 750 networked computers. This is of course, exclusive of the IT infrastructure that is part of the Pakistan Education Research Network that extends an IT-support to all the 134 colleges/universities. Ensuring updated IT-environment in place, the HEC is in partnership with various local and multinational technology vendors.

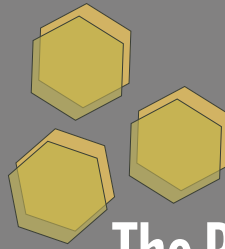
With the IT-Project at work had started Management System. An executed within a budget funding scholarships, monitoring the complexity

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Said Sohail Naqvi, Executive Director at Higher Education Commission

at all times, building a robust financial management system was indeed mission-critical. Hence, the decision to go ahead with an internal system that is synced with the existing workflow was taken. The project was in the skunk works for two years. While it helped streamline a lot of processes and brought a learning curve for both the organization as well as the workforce employed, it could not serve the purpose. That was when the HEC opted for a major player to bid for the requisite Financial Management system it wanted and a tender was floated in September 2006," explained Sohail Naqvi.

underway at the HEC, the experts developing in-house a Financial implementation that had to be of Rs. 42 billion that goes into research grants etc., and of day-to-work under a close watch

As Khwaja Zahid, VS Coordinator, HEC, relates, "That was when we came across SAP through its implementation partner, Siemens Pakistan, and realized the immense problem-solving promise it holds for a government setup like the HEC. The potential of SAP surprised us all, and is still under-study with our experts although we do have plans for the next set of implementations we'd like to execute in order to make the HEC, a fully-interactive learning institution."



The Business and IT Alignment

**“With Siemens Pakistan finalized as the implementation partner in January 2007, we had gone live with a soft launch by March 2008,”
Sohail Naqvi commented.**

And so, the IT team’s first task at hand was to outline a set of requirements. Given a two-year failure of developing an in-house module, the IT team at the HEC knew very well what the requirements were. Therefore, a comprehensive document on the same was put together and advertised for the best ERP Solution Providers to submit a bid for the evaluation process. In lieu with Pakistan Procurement Rules, a tender was floated in the media and 19 technology partners were technically appraised. Siemens Pakistan was found the most suitable with a level of competency in ERP implementation much higher than any of the other competitors.

Via its implementation partner, Siemens Pakistan, active in 43 countries, the HEC opted for an implementation of SAP ERP modules that included Financial Accounting (FI), Controlling (CO), Human Resource Management (HRM), Material Management (MM), Project System (PS), Funds Management (FM). The implementation process followed was on an Accelerated SAP Methodology that involved a five-step process namely the Project Preparation Stage, the Business Blueprint (requirement gathering) Stage, the Realization Stage, the Final Preparation Stage and Go-Live. At the HEC, total time span was a year and three months. “With Siemens Pakistan finalized as the implementation partner in January 2007, we had gone live with a soft launch by March 2008,” Sohail Naqvi commented.

Resistance to change is a generational challenge, and will be overcome only with time and expertise, as the

management board at the HEC has realized. As Sohail Naqvi shared his perspective on the same, “The biggest challenge we faced was the human dimension to it, especially during Business Process Reengineering. With the work more synchronized, mistakes were quite easy to detect which made people quite hesitant. Another significant challenge to be dealt with was the stringent audit regime that dealt with paper and ledger simultaneously. As a migration onto the electronic system was underway alongside, the existing workload of the workforce was increased with the pen and paper work done in tandem. Prior to the implementation of SAP ERP modules, the software and hardware in place supported stand-alone work. A post-SAP environment made possible an integrated workflow with larger monitoring, tracking, and collective decision-making” Sohail Naqvi commented.

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DO YOU KNOW

For one PhD Scholarship advertised, the HEC receives an estimated number of 10,000-12,000 applications through its web portal

Establishing the Partner Connection

What stood out Siemens Pakistan amongst all other bidders was its association with SAP, as it was the technology partner that had brought SAP to Pakistan. SAP has also been recognized by Fortune Magazine as the world's leading Independent Business Software Provider.

"Although we were ready for SAP when it came to us, a huge role play in helping us go through an entire process change was of our implementation partner, Siemens Pakistan. We went through a staged mechanism of implementation, whereby our workforce got trained on all the modules being deployed," Sohail Naqvi added. A detailed presentation was given to Siemens consultants by HEC Business Automation System (BAS) team and the modules to be implemented were tailored to the requirements of the HEC. Following it, employees from IT, Finance, Administration, Planning & Development, and Human Resource Divisions were extended professional-level training on SAP ERP modules to create an in-house core team familiar that will liaise with SAP on all future developments.

Furthermore, Siemens Pakistan carried to its portfolio ERP implementations completed in various public-sector organizations, PIFRA(Pakistan Improvement to Financial Reporting and Auditing) being the most prominent one.

Mark of Excellence and Leadership

HEC is also offering scholarships to students pursuing PhD. Part of the Project Management system, Siemens Pakistan has implemented for us an online application processing module that has assisted us tremendously with sorting of candidates interested in filing for scholarships. For one PhD scholarship advertised, we have been receiving 10,000-12,000 applications through our web portal. Following the second phase of implementation, we intend to make our web portal fully interactive for all our partners," Sohail Naqvi added.

"For students, the attestation process is eased via the web portal. The student logs onto the HEC's online portal, fills in the application, collects printouts of both the application and fee slip and couriers both to the HEC. After attestation, the degree is couriered to the

candidate by the HEC eliminating the physical drain. This for one couldn't have been achieved in an IT-less environment," Khawaja Zahid elaborated.

In a post-SAP environment, the biggest gain made was in the accuracy of reports generated. With 10,000 students on scholarships annually on an average, there were doubts on credibility of numbers with respect to the funding on each candidate, the respective discipline under-study and a deserving placement for the student, aid received from the GoP and distributed to a particular university/college etc. In a post-SAP environment, all authorized persons/divisional heads have available on their desktops the current budget position. Prior to this, getting a heads-up on the same would require one to waste at least a week

with files and a lot of telephone calls to the Finance Division. Instead of digging from records, the divisional heads were now able to access and share an accurate profile of the candidate on a single consolidated window.

"As the HEC is inherently a government organization, for any financial transaction to be sanctioned, it has to be on a piece of paper. Excepting a few case scenarios where the presence of paper is must, we have automated all processes. An invoice generated is forwarded to our Audit Department for approval. If approved, it is routed via our Finance Division to the bank requesting the payment to be transferred. Hence, all processes from approval to outflow of funds are automated," Khwaja Zahid briefed.

The Road Ahead

"When SAP was brought to our organization, our initial requirement was very limited much to the likes of a thorough Financial Management and a Project Management System, for tracking flow of funds and projects underway. We have successfully completed the first phase of implementation. Scheduled for implementation in the second phase are SAP Workflows and an interactive web portal for our clients and channel-partners. Underdevelopment at the HEC in collaboration with SAP is a full-fledged two-way portal that would enable its clients (colleges/universities) to submit budgets online for approvals cutting down the extensive paperwork involved in getting funds released for these budgets from the federal government," Khwaja Zahid elaborated.

Payroll, Review Reports, Business Intelligence and a Dashboard for an equally-optimum online environment to be in place, are still in progress. It is the visibility, the volume and the speed of processing that the HEC would like to get improvised across the board at the 200 locations with half a billion dollar investment.

"That is the sort of benefit we'd like to gain from the implementation. The speed at which you can get the information needed and use it for policy-making at the desired time, are some of the major benefits we are aiming for," concluded Sohail Naqvi.