

LESSONS LEARNT IN THE TRANSFORMATION OF THE UNIVERSITY COMPUTING CENTRE (UCC) FROM A UNIVERSITY UNIT TO A LIMITED LIABILITY COMPANY

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Abstract

In this paper we present and discuss our experiences and lessons learnt in transforming the University Computing Centre (UCC) from a unit under the Department of Mathematics in 1965 to a fully fledged limited Liability Company (UCC Ltd) wholly owned by the University. In order to sustain the ICT investments made, and to ensure continuous growth of ICT, the University approved the transformation of UCC into a limited liability company in 2000. UCC Ltd now operates as a service provider to the University, and has negotiated Service Level Agreements (SLAs), which guarantee quality of service and more professional support to the university. The fund generated from the business has been used to effectively sustain ICT services to the university including reduction of staff turnover. The capacity of UCC to support the implementation of the university strategic plan, to participate in national development through ICT services and technology transfer to other sectors of the national economy has increased. A planning and results oriented culture has been introduced in the organisation.

Key words: *ICT resources management, staff retention, Service Level Agreements.*

1. Introduction

In this paper we present and discuss our experience and lessons learnt in transforming the University Computing Centre (UCC) from an ordinary university computing unit under the Department of Mathematics in 1965/1966 academic year to its present status i.e. UCC Ltd. The paper gives the overall picture of the transformation process including the background, motivation, goals and objectives, the path taken, pros and cons of the transformation, where we are now and future prospects.

2. Background

The University Computing Centre (UCC) was established in 1965 as a Unit under the Department of Mathematics at the University of Dar es Salaam. Primarily, the unit was responsible for overseeing, coordinating and maintaining all computing activities for the University. Later, on the 1st of July 1980, UCC was elevated into a full-fledged Centre with a status equivalent to that of Faculty or an Institute of the University of Dar es Salaam.

Specifically, the objectives of the new UCC were:

1. Teaching all computer and computer related courses;
2. Research in informatics; and,
3. Provision of computing services and consultancy both to the UDSM community and outside the university.

During this time UCC had a governing board of which the Chairman was the Director of the Centre. The board was responsible for formulating the operational and functional policies of the centre. From the 1st of July 1999, all academic matters were transferred to the newly formed Department of Computer Science. This move was meant to make UCC fully concentrate on the management

and business part of Information and Communication Technology (ICT) services provision for the university and to the general public in Tanzania.

At this point, UCC was left with the following mandate:

- To develop and run ICT-related professional and short course training programs
- To provide and maintain internet and other ICT services and support to the UDSM
- To provide ICT based consultancy and other services to the general public
- To design, implement, manage and maintain the UDSM network infrastructure
- To advise the UDSM on all ICT related matters including updating the UDSM policy and master plans regularly.

3. Staff Recruitment and Retention Strategy

From its inception, UCC was envisioned to be a centre of excellence in ICT services provision in Tanzania as well as in East Africa. To realise this vision required UCC to either employ a team of experienced and handpicked ICT professionals or recruit a cadre of young, energetic and highly trainable ICT staff capable of fulfilling the mandate. UCC opted for the latter since the former was perceived as being too expensive and practically very difficult. To acquire and retain experienced ICT professionals from elsewhere in the industry required UCC to have a stable and sustainable financial capability.

Going for the second option however had its own implications. One was that we had to design a recruitment procedure that would yield the desired outcomes. Secondly, we had to perform a training needs analysis for our staff. Thirdly, we had to develop strategic mechanisms to look for and obtain funds necessary to train the recruits to the required level of expertise. Fourthly, we had to explore the available training opportunities and select ones that best suited our specific needs.

Having gone through that cycle of activities we were sending our staff batch-wise to various places for training. We were sometimes forced to invite trainers from elsewhere to carry out the training locally at UCC. This was especially when we wanted to implement a massive training of staff on common modules. Sometimes we had to overwork a few remaining staff when their colleagues were away on training.

Experience though showed that a short while after becoming competent, they started looking for better paying jobs elsewhere. Towards the end of 1998 staff turnover ratio for technical staff went as high as 20%, and was growing higher, turning UCC into a stepping-stone for fresh graduates. The major reason given by many of those quitting was low pay. Most of them argued that while UCC had a better working environment and training opportunities, other local organisations were paying as high as five times the UCC pay.

Perhaps it is important to point out here that the primary goal of UCC from then to date has always been to fulfil the UDSM ICT requirements first and thereafter to sell the excess capacity to the general public.

4. Motivation in Transforming UCC into a Limited Liability Company

Sustainability was one of the major motives for transforming UCC into a limited liability company. Being an ordinary unit of UDSM, UCC could not effectively compete in the IT business due to its legal status coupled with relatively rigid procedures and control systems, especially, on the financial aspects. The funding from UDSM to support the day-to-day operations of UCC was getting less and less with time, while operations were getting bigger and bigger. This created a need for looking into some other means of generating income in order to ensure sustainability.

Learning that the market for IT services in Tanzania was still at infancy stage, and that the growth rate was significantly high, the management of UCC initiated a move to the transformation. There were many indicators of the increased market opportunities in IT services. One was that, unlike UCC, most IT service providers lacked an adequate supply of IT experts. Increased awareness of and potential for IT services was evidenced by the extent at which computer training centres and internet cafés were being established in the country. Some primary and secondary schools had started to include IT related courses in their syllabi. Further, government institutions and private organisations were starting to computerise their systems.

To exploit the full potential of the IT services market, UCC formed a business plan committee in December 1998 and charged it with the task of carrying out a study aimed at reorganising UCC and formulating a business plan for its expanded operations. In addition to the steady increase in volume, the study was considered necessary after UCC was charged with the responsibility of implementing the UDSM ICT master plan. On completion of the study, the committee came out with its findings coupled with a number of recommendations based on its terms of reference. One of the major recommendations was that UCC should change its legal status to a limited liability company. To emphasize the business aspect of UCC, the council of the UDSM passed a resolution in May 2000 transforming the centre into a limited liability status. Since then UCC has been up and running as a limited liability company, wholly owned by the University of Dar es Salaam.

5. Findings and Recommendations by the Business Plan Committee

A business plan committee recommended, among other things, a newly formed UCC Ltd to run under a new board of directors. The committee also recommended the composition of the board as

having 10 members. Since the University wholly owns the Company (UCC Ltd), the committee recommended the chairperson to be an appointee of the Vice Chancellor. The board is composed of the 3 representatives from the government, 2 representatives from UDSM, 2 representatives from the private sector, 1 representative from UDSM senate and the UCC Managing Director who is also a secretary to the board. The committee further recommended UCC management to consult its lawyers to seek for a legal opinion on the recommended transformation. The legal team was asked to find out whether the then University of Dar es Salaam Computing Centre could be transformed into a limited liability company within the framework of the Act establishing the University of Dar es Salaam.

6. Issues Tabled to the Legal Team

Specifically, the legal team was tasked to investigate and give a legal opinion on whether the existing University of Dar es Salaam act, 1970 and/or proposed draft act of the University of Dar es Salaam embrace(s) adequate provisions capable of enabling the establishment of UCC Ltd. Should

the answer to this question be in the affirmative, the legal team were asked to advise on the following:

- What form of a limited liability company should UCC take?
- Who should appoint the directors of the company?
- Who should appoint the managing director of the company?
- Who between UDSM and UCC Limited should be his/her employer?
- Who should appoint the other members of the management team and other employees?
- Who between UDSM and UCC Limited should own the company's assets?

Following receipt of a favourable legal opinion from the UDSM legal support team on the proposed formation of UCC Limited, we started the legal processes and eventually UCC Ltd was incorporated in January 2001.

7. Experience after the incorporation of UCC Ltd

Post UCC LTD implementation has been very encouraging in many different ways. UCC has now significantly expanded in terms of its business operations. As of today, we have established 4 branches within Tanzania in addition to the head office, which is in Dar es Salaam. One branch is in Dodoma, which is a capital city for Tanzania, one in Arusha, one in Mwanza and the fourth in Dar es Salaam city centre. The target is to establish our centres in the other remaining regions in the country. This is in line with UDSM plans of expanding its e-learning infrastructure to cover the whole country in order to effectively support distance education students. These, however, are long-term plans that are subject to availability of funds.

Our strategy has always been to create centres that are mirror images of the head office in terms of training resources and facilities, instructors' competences, and other services offered by our branches.

8. Services Offered

UCC Ltd is offering a number of diverse ICT services both to UDSM and the general public/industry. These include, but are not limited to the following:

- Short course, tailor made courses and professional course training
- Internet services (ISP Services)
- Web design hosting and management
- Software development and systems integration
- Network design, installation and management
- Hardware and software maintenance
- Online examination services (Prometric Testing Centre)
- ICT consultancy services

At the moment not all of these services are offered in all branches but we are working hard to see to it that they are all implemented. What is limiting, though, is fund availability. Training is the only service offered in all branches. Some of the branches are more advanced than others, thus offering more services.

9. Lessons Learnt

• Staff Retention

Regarding staff turnover ratio, this has significantly gone down to 4.7% by July 2004. In comparison to the previous situation, we see this as a very significant achievement. The achievements have been greatly accelerated by a relative increase in salaries after transforming UCC into a limited liability company. Much as we concede that the salaries we offer are still relatively low compared to ones offered in the industry, the increase has stimulated the working morale amongst staff. Our main target is to increase productivity that will in turn result into increased revenue and eventually increase staff salaries to match or exceed the market salaries. Meanwhile we are exploiting all potential opportunities to take our staff for further and specialised professional training locally and abroad. For instance, currently we have two of our staff pursuing PhD in computer and systems sciences and many others doing various professional courses abroad.

In the early days our strategy was to recruit and train, while now our strategy is to train and recruit the best from our trainees. This has considerably reduced both the cost and risks of acquiring junior technical staff. Five programmes have been established from which we recruit most of our junior engineers/technicians. These are:

- i. Internetworking
- ii. Internet programming
- iii. Software development
- iv. ICT services management
- v. ICT security

The courses last up to six months and often, followed by three months on the job training.

• Services to University

The University remains the main client of UCC Ltd. The services to University have thus expanded and been enhanced in quality. Above all they are now done in a more professional manner insisting on the quality of service (QS). So far three detailed Service Level Agreements (SLAs) have been negotiated and signed. More areas will be added to SLAs. The SLAs, apart from forcing UCC Ltd to operate professionally, also allow the UDSM to know the cost of ICT services and as such plan and prepare adequate budgets for ICT services. They also force UDSM to recognise the important roles for ICT end-users, thus providing for end-user courses.

Provision of ICT services to a University that increasingly depends on ICT requires capacity to respond to emergencies in terms of decision-making and expenditure. This has been very easy for UCC Ltd, which has ensured that services are maintained regardless of UDSM liquidity position.

Also, as a limited company, it has been very easy either singly or in collaboration with UDSM Departments to undertake R&D or develop new services for UDSM. This has included supporting and/or further development of students' projects and turning them into services or products for UDSM or for the market.

• Services to Public Sector

In the development and provision of ICT services, UCC Ltd has focussed on e-government and e learning. Considerable expertise has been developed in this area. Our expertise as well as the fact that we work like any other private company, meeting all conditions of the Public Procurement Act, has enabled us to win most of the knowledge intensive contracts from the Government.

Our ability to easily form multidisciplinary teams comprising of other UDSM experts gives the UCC Ltd advantage. It might therefore be said thus UCC Ltd has opened up an additional avenue for technology transfer from University to the rest of the national services and economic sectors.

- **Services to Private Sector**

Being a private company, UCC Ltd talks the same language and shares the same experiences, with the private sector. Apart from providing services to the sector, UCC Ltd has been able to establish partnerships and joint ventures. Currently two junior companies have been established with companies from Korea and Italy in specific areas for mutual benefit.

- **Sustainability Issues**

The main reason for transforming UCC into a Limited liability company was to ensure that UDSM ICT investments and services are sustainable. So far, the experience is that UCC Ltd. has both the organisational and technical capacity to provide adequate ICT support to UDSM. Through UCC Ltd. business operations, increased financial flow into the university has been realised. Currently the biggest share of these funds is used to top up salaries for technical staff thus retaining them for University services.

10. Conclusion

It must be noted that the developments mentioned above were undertaken as part of the overall transformation program of the University of Dar es Salaam. The strategy taken to transform the University Computing Centre into a limited liability company made it easier to achieve the organisational culture change. With the resulting planning, result oriented organisational culture, UCC Ltd is in a better position to support ICT services to the university and contribute to national development through ICT services and technology transfer.

11. References

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