



Towards the sustainability of a financially constrained university's Hotel School: lessons from local and international universities' Hotel Schools

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Abstract

Since the emergence of universities of technology (UoTs) in the higher education landscape of South Africa, their hotel schools have been at the forefront of vocation-oriented hospitality-curricula, thereby playing a leading role in the hospitality industry. Unfortunately, hotel schools are very costly because of their relatively high overhead costs and the fact that they admit relatively fewer numbers of students than other offering types. Needless to say, funds generated internally from student fees are more limited than other programmes. As a result, hotel schools of UoTs are most vulnerable and susceptible to the liquidity problems that have engulfed South African universities, making it extremely difficult for these schools to make ends meet. This situation arises largely from a combination of dwindling subsidies from the Department of Higher Education (DHET), increasing student debt, ever growing administrative and student services costs that outstrip income from student fees, and ever-rising fixed and overhead costs. To reverse the situation and create a more financially sustainable institution, clear and innovative strategies are required from universities. This study originated from the precarious financial situation of a particular UoT's Hotel School which, for some time now, has been finding it increasingly challenging to balance its income and expenses and, consequently, to function as a financially viable academic unit. This has forced the school to try and find innovative ways to implement curricula and maintain facilities as cost effectively as possible without compromising the quality and effectiveness of its offerings. In this paper, the authors report on the findings of the research done to identify a sustainable financial management strategy for the Hotel School.

Keywords: Hotel schools; sustainable financial management; strategy; South Africa.



Introduction enshrines

The National Development Plan 2030 (SA, 2011:261) describes Higher Education and Higher Education Institutions (HEIs) as the main driving force of socio-economic development in and the strategic development of South Africa (SA, 2011:262). However, in order for the above to be realised, these HEIs have had to contend with a number of challenges, such as increased access to higher education and a need to improve the quality of their programmes on offer (Sanyal & Johnstone, 2011:157). They have also had to contend with fierce competition for recognition and excellence, dwindling resource allocation as well as exploding student numbers because of the increase in demand for higher education (Mthembu, 2013:25), the latter predicted by the *White Paper for Post-School Education and Training* (SA DHET, 2013:30) to increase from 17,3% in 2011, to 25% by 2030. Other challenges faced by HEIs in South Africa is the high student dropout rates, especially in the first year (HESA, 2009:2), and the low success rate of 15% graduation compared to the 25% international norm (SA DHET, 2013:31). Cloete and Moja (2005:709) attribute the poor throughput rate to government's insufficient Student Financial Aid Scheme (NSFAS).

The National Plan for Higher Education 2001, proposed a system of funding for Higher Education in South Africa almost a decade ago, but the issue has remained highly contested with the debate narrowing down to free Higher Education (Wangenge-Ouma, 2012:1-2). Currently, South African universities are funded by the state, privately or through a mixture of the two. However, the importance of adequate and appropriately balanced first, second and third-stream income funding for the sustainability HEIs cannot be emphasised enough (HESA, 2009:6). While government subsidies and tuition fees make up the first and second-stream income, contract research; endowments; commercialisation of intellectual property and others; form the third- stream income. Michael (2002), in Nkrumah-Young and Powell (2008:245), advocate for a resource allocation model (RAM) that holds both the funder and the HEI accountable for their actions and spending since, according to Orr (2005:1) and Nkrumah-Young (2005:58), this will steer institutions towards financial sustainability that is intertwined with accountability in the form of a resource allocation model (RAM).

In 2004, a new funding framework in which a distinction was made between block grants and earmarked allocations was introduced for HEIs. Block grants which are calculated on the number of student enrolment inputs, student completion outputs, research outputs as well as two institutional factors, comprise more than seventy per cent of the total state budget towards universities, and entail four sub-block grant categories, namely: funded teaching input, actual teaching output, actual research output, and institutional factors (HESA, 2011). Institutional factors include the increasing diversity of student profiles and benefitting smaller Higher Education Institutions in the form of compensation through NSFAS allocations and academic development programme-grants as part of earmarked grants.

The Ministerial Committee for the Review of the Funding of Universities, presently considering the revision of the current funding framework for universities, is proposing that greater emphasis be placed on rewarding graduate output, in line with the international trend of a greater emphasis on output-based funding. Furthermore, there is a call that qualifying NSFAS students receive full funding, covering all costs associated with their studies, and that non-qualifying students be granted admission to bank loans underwritten by state securities (SA, 2011:292).

Granting that efforts are being made to alleviate the financial crises facing South African universities, many, especially those with disadvantaged historical backgrounds such as



universities of technology (UoTs), continue to toil around adequate financing. This study specifically focuses on the financial plight of UOTs with emphasis on their hotel schools.

Context of the problem

Arising from the conversion of former Technikons into fully fledged universities with the mandate to provide - mainly vocation-oriented education, universities of technology (UoTs) are integral to the South African HE system. UoTs' Programme Qualification Mix (PQM) include the hospitality curriculum through hotel schools which are, by nature, very expensive to run. The problem of cost is compounded by: reduced government subsidies to universities; the relatively fewer numbers of students as opposed to other offerings (which result in internally generated funds from student fees being very limited); increasing student debt; ever-increasing administrative and student services costs that outstrip income from student fees; as well as rising fixed and overhead costs. Accordingly, hotel schools are finding it increasingly challenging to balance their income and expenses, and function as financially viable academic units. These schools have been left with no other option than to look for innovative ways to implement curricula and maintain facilities cost-effectively without compromising quality and the effectiveness of their offerings.

Faced with this problem, the Hotel School of the Central University of Technology, Free State (CUT) found it necessary to develop and implement a sustainable financial management strategy to remain afloat, especially since problems arose when the CUT decided to implement a university-wide resource allocation model (RAM) which was, in part, linked to student numbers. As the Hotel School only admits a limited number of students, the RAM model threatens its sustainability.

As part of six departments in the Faculty of Management Sciences at CUT, the Hotel School has managed to carve an impressive name for itself among peers, and is well known and accorded national respect for its educational standards and service to its community. For instance, in 2006, the Hotel School was nominated as Bloemfontein's Business of the Year in the *Ons Stad* newspaper. According to Professor Daneel van Lill, former Director of the School and now Dean of the Faculty of Management at the University of Johannesburg, graduates had an employment record of 95% within three months after graduating and 52% of these *graduandi* reached middle level management positions within two years. An independent study conducted by SA Tourism found that the three largest hotel chains in South Africa viewed the CUT Hotel School as the best in South Africa (Gericke, 2006:14). In addition, the school's reputation is strengthened by commercial projects and participation in events such as the Presidential Golf Cup in Fancourt (Mentz, 2004:14) and its assistance with the development of the South African College for Tourism in Graaff-Reinet. This college, supported by the Peace Parks Foundation, was established in 2001 by the late Dr Anton Rupert. It was the first college in South Africa to focus its training programmes on the development of Hospitality, Operational and Management Skills to obtain employment at a guesthouse, lodge or small accommodation facility. The college utilises learning materials developed by the CUT Hotel School, and its programme is moderated by the school. Also, the Peace Parks Foundation website refers to the CUT Hotel School as "one of South Africa's premier hotel schools (Peace Parks, 2014).

With these glowing accolades, one would expect this Hotel School to be financially sound, but this is not the case as it is besieged by financial strains. The singular most important reason for this strain is the fact that the school's intake of first-time enrolments is capped at 75 students per year – a situation that limits the state *Funded Teaching Input Grant* as well as the tuition fees received. In line with the practice by most UoTs, the CUT's top management took a decision to develop the Science, Technology, Engineering and Mathematics (STEM) areas at the expense



of the Management Sciences. This strategy, therefore, has substantially prohibited some departments, like the Hotel School, from increasing student intake. While theory lectures are conducted in class sizes ranging from 40 to 60 students, practical subjects require smaller class sizes to achieve the learning outcomes. Subsequently, culinary (kitchen), food and beverage (restaurant), housekeeping and computer classes are conducted in groups of approximately twelve students. Owing to this relative low staff-student ratio, the number of staff employed in the Hotel School is relatively high, resulting in high remuneration expenses, reflected in the high operational costs of practical classes because of materials and overhead costs.

Apart from the known reasons for high dropout rates in HEIs (HESA, 2009:2), the practical and thus exhaustive nature of the course increases this occurrence in the Hotel School, thereby decreasing the *Actual Teaching Output* grant received from the state. Also, regrettably, staff research outputs have not had a positive impact on the *Actual Research Output* grant received from the state. Fortunately, there is a third-stream income from coordinating and holding events and functions. But, this is not fully realised as the Hotel School is first and foremost an educational department, and is limited in offering such services. Thus, more innovative ways of income generation options must be identified in order to move towards a more sustainable financial model for the CUT Hotel School.

Since the problem the CUT's Hotel School is facing can be summed up as increasingly higher-than-income expenses making it difficult for the school to function as a financially viable academic unit, it is crucial the school learns from local and top international hotel schools to improve financial sustainability.

Objective of the study

Based on the above problem, the main objective of the study was to compare the CUT Hotel School operations with similar local and internationally acclaimed hotel schools to identify best financial management practices that can be adopted to remain financially sustainable. To achieve this objective, the following five specific objectives were set:

1. Use the current literature to reflect on HEIs' funding dynamics, globally and locally, with specific focus on funding sources and challenges/ pressures threatening the financial sustainability of HEIs in general and hotel schools specifically.
2. Determine how the dropout rate of the CUT Hotel School compare with those of local and top international hotel schools and how they are managed to ensure financial sustainability.
3. Determine an optimal staff-to-student ratio for the CUT Hotel School based on that of local and top international hotel schools.
4. Examine the income sources and major expenses of the CUT Hotel School as compared to those of local and top international Hotel Schools and how they are managed.
5. Examine the financial management model currently used to manage the resources of the CUT's Hotel School as compared to those of local and top international hotel schools.

Literature review

This section provided a theoretical overview of the global funding dynamics of and pressures threatening HEIs and their financial sustainability, funding sources, the income sources of South African HEIs, as well as a discussion on financial management strategies and the management of resources through the use of RAM models.



Global overview of higher education funding

All around the world, universities have been experiencing turmoil, forcing them to adjust to rapid and daunting changes which include declining government support. With the decline in government financial support, universities have had to increasingly adopt privatised characteristics by attracting more fee-paying students and implementing other fee-generating activities. According to Nordal (2014), the benefits of higher education far outweigh the costs thereof, affirmed by human capital theory and numerous studies, dating as far back as the 1950s, which show it profitable for the individual as well as the state to invest in education (Psacharopoulos & Patrinos, 2004:111). Despite this, public and private funding of HEIs is still considered a sensitive matter worldwide. As such, this has driven universities into competition with each other, and with private educational institutions, both nationally and internationally (Parker, 2012:252).

Many international universities have adopted various revenue-generating strategies in order to cope. These strategies include: charging tuition fees; obtaining financial gifts and sponsorships; embarking on joint research programmes with companies; establishing knowledgeable and capable professorships; obtaining external research grants; obtaining sport programme sponsorships; attracting sponsorships for buildings and facilities; patenting and licensing research findings; selling university-branded products and services; profit-sharing with on-campus businesses; expanding lucrative educational programmes; and developing national and international fee-paying student education programmes (Parker, 2012:260). In addition to focussing on increasing income, universities have also started implementing cost-effective strategies which include increased resource attainment, and more effective resource allocation and maintenance. These resources include the physical assets of the institution, such as buildings, plants and equipment; the employees; teaching delivery; and administrative processes (Parker, 2012:260). Research done by Zhang and Li (2013:56-57) into the low level of public spending towards higher education in China, and consequently the shortage of resources. helped them develop a Resource Optimisation Model for Higher Education to optimally allocate and efficiently use available resources. One of the resources, namely human resources, is reflected in the teaching and scientific staff, student culture, innovation in science and technology, as well as service to society. Other resources include material ones such as, among others, the buildings where teaching and research are conducted and the scientific equipment; while financial resources include salaries, research, student scholarships and social services (Zhang & Li, 2013:57).

Optimal allocation and efficient usage of resources become crucial as governments put more pressure on HEIs to play a bigger part in transforming low-income economies into high-performance, technology-driven economies, while being more accountable, efficient and productive in their use of income generated from the public. HEIs are expected to reach these goals, enhance productivity through expanding learning skills, and improve the ability of workers to develop and use technology (Alexander, 2000:411).

In addition to the above-mentioned governmental and funding-related pressures on HEIs, Goldstein (2006:5) adds that technological change, changing student demographics, rising consumer expectations, and increased competition are top drivers of change in higher education. Göransson and Brundenius (2011:3) contribute the structural changes higher education has undergone in recent decades to globalisation, the information age, and the rise of the knowledge-based economy. They argue that knowledge and competencies play an ever-increasingly critical role in national economic development and welfare creation. The increased rate of change has resulted in produced knowledge and economic competitiveness being closely and more directly



linked to these institutions. Thus, new and urgent demands are being placed on academic institutions to adjust to the changing needs of societies and economies. These authors conclude that there is a global trend amongst universities and education systems to reform themselves.

Numerous universities have moved beyond their traditional role in the higher education market to become important structures within government, acting as national economic drivers. This is shown in various public-sector-funded universities generating increased market-related revenue, and corporately-owned universities being managed as for-profit institutions. These movements within HEIs occurred concurrently with the transformation of the public sector by the New Public Management (NPM) movement occurring in many countries. Starting in the 1980s, this movement encouraged the commercialisation, corporatisation and privatisation of a large portion of many countries' public sectors. Under the influence of NPM, governments redirected their focus to "a philosophy of the user pays; value-for-money from government expenditures; devolved decision-making authority; simultaneously enhanced accountability and controls; and market-based competition". This management style placed greater emphasis on top-management control, using budgets as driving forces, and focussing on the efficient use of resources. Thus, performance is measured against outcomes attained. Due to this change in focus, governments have decreased, amongst other areas, direct involvement in education while universities worldwide are forced to operate more as businesses than service providers. Furthermore, students are increasingly regarded as customers; business and professional communities as financial resource providers; education and research programmes as products; and the external environment as the market place (Parker, 2012:248).

Evidence of changes and challenges faced by HEIs was found worldwide. Although higher education in America is regarded as the best in the world, HEIs there are overwhelmed by challenges and demands threatening their capacity to meet increasing expectations. This emphasises the immensity of the challenges HEIs are facing (Dickeson, 2010:1). During the State of the Union Address on 2 January 2012, President Obama requested HEIs to become more efficient, keep their costs down, and restrict increases in tuition fees. He also requested that higher education not be regarded as a luxury, but as an economic imperative for every family in America thereby giving it high priority in the state's budget (Obama, 2012:3). Despite the afore-mentioned, American HEIs are also feeling the pressure to increase income, decrease expenses, improve quality and strengthen their reputation. Although they have succeeded to increase sources of income (tuition fees; federal, state and local subsidies; private gifts; investment returns; and income from donations), control over their expenses has proven more difficult (Dickeson, 2010:1-3). Moreover, Higdon (2010:32) adds that, due to the ongoing effects of the 2008 recession, many American families are still struggling to make ends meet - even losing the power to borrow money. He cites this as a reason American HEIs were forced to refrain from increasing tuition fees during this recovering period. Public universities in the United State (US) generate some funds from commercial and non-commercial activities (Bok in Fowles, 2014:274), but most are generated from tuition fees, state allocations, donations, and federal funding.

From this it becomes evident that universities are under immense pressure to ensure that their resources are well prioritised, and costing, pricing and income controlled effectively. As a result, attention has been drawn to the financial management of universities (Oduoza, 2009:133). Through all this, Connecticut College stands out as an institution that has not only managed to continue to increase its budget, although more discreetly than in the past, but also to increase financial aid to financially needy students (Higdon, 2010:32). With financial challenges necessitating that HEIs re-examine their operating budgets and revise their mission, departments at the Connecticut College have kept their budgets flat on a year-to-year basis (i.e. Zero-based budgeting (ZBB) but calling for department managers to submit and validate requests for funding



above current levels to the committee dealing with budgets). Additional liquidity is sought, in order to develop a balanced budget with various possibilities available. ZBB budgets are based on strategic plans and priorities, but remain flexible and adaptive to economic changes. Programme objectives are examined through the lens of the core mission, keeping all available resources in mind (Higdon, 2010:32).

Europe has also not been exempted from the challenges, as the United Kingdom (UK) universities have also been faced with declining funding, together with a simultaneous increase in student numbers. Another continent affected by the global challenges and changes in higher education, is Australia. Between the early 1970s until the late 1980s, public funding to Australian universities had decreased. Since then, various funding and tuition fee changes have occurred, most notably that student fees covered most of the costs of higher education as state funding became less. De Zilwa (2005:387) mentions that universities globally use revenue diversification as a method to seek financial stability. Thus, Australian public universities have generated additional income, other than state funding, from tuition fees, royalties, trademarks and licenses, consultancy and contract research, investments projects, tuition fees, and others. More recently, students from poor communities have also been assisted with bursaries and loans in order to enable them to afford higher education. This is done through the interest-free Higher Education Contribution Scheme (HECS), where repayments are only expected when annual income increases above a certain level.

Asian HEIs were also not immune to these challenges. Ravi (2012:7) notes that HEIs in India are faced with problems related to admission, equity and quality. Other problems include outdated curricula, academic staff vacancies, poor quality of commitment and competence, insufficient research, low levels of skills development, and low employability rates.

Following the global trend, African HEIs have been forced to diversify their income sources due to declining financial state support. Public universities in Kenya, Uganda and Tanzania have implemented dual-fee tuition fee policies, admitting more students than those funded by the state, and charging the additional students full cost recovery tuition fees. Owing to these policy changes, the largest portion of Uganda's Makerere University's total income is generated from tuition fees (Carrol, 2006:84), while nearly 30% of Kenyan public universities' total income is generated solely from tuition (Ouma, 2007:148). Additionally, African HEIs have experienced challenges of "accessibility, affordability, financial austerity, faculty recruitment and retention, and the inability to improve physical facilities". As a result, African higher education is burdened by an increased demand for participation, as well as financial rigidity. Universities in Ghana, for example, are confronted by insufficient and run-down infrastructure and facilities; decreasing standards; questionable relevance and quality of programmes; and a general lack of motivation of faculties (Atuahene, 2008:407).

Funding-related challenges, changes and adaptations in South Africa

South Africa was not immune as state funding of higher education has decreased in the past years (HESA, 2008:9), negatively affecting attainment of the key policy goals described in the 2001 National Plan for Higher Education (NPHE)'s goals, as discussed in Section 1.6 on page 5. Goals include producing the graduates South Africa requires for social and economic development; ensuring equity and diversity in the South African higher education system; sustaining and promoting research; and restructuring the institutional landscape. Insufficient fund allocation impedes attainment of these goals (Wangenge-Ouma & Cloete, 2008:906-907). Also under discussion in recent years has been the adequacy and suitability of government funding to South African universities in addition to frequent tuition fee increases. State funding varies



annually since it is dependent on economic and political processes, and has to be negotiated from year-to-year. However, the Medium-Term Expenditure Framework (MTEF) introduced by the government, that allows allocations to be calculated in three financial-year cycles, has seen funding stabilise (De Villiers & Steyn, 2007:4).

Between 2009/2010 and 2013/2014, funding of higher education by the South African government had increased by 12% per year which, in monetary terms, was an increase from R38 billion to R60 billion (Statistics South Africa, 2015). Despite this significant increase, the state's funding of HEIs had declined when expenditure is calculated per capita, and considering the running costs of universities. This is also evident when state funding is calculated as a percentage of the total government budget and of the GDP (SA DHET, 2015b:20). De Villiers and Steyn (2009:43) also indicate that when calculated as a percentage of the GDP, state funding towards higher education had decreased significantly in the two decades prior to 2009. According to Wangenge-Ouma and Cloete (2008:907) state funding had decreased from 0,86% in 1986, to less than 0,67% in 2006 (De Villiers & Steyn, 2007:2) when measured against the GDP. In 2012, it was 0,71%, and during 2014/2015 it decreased further to 0,64% (USAf, 2016:3). This ratio, calculated as a percentage of the GDP, is also well below the Organisation for Economic Co-operation Development's (OECD) average of 1,59% of the GDP (OECD, 2014; Standing Committee on Appropriations, 2014). Compared to the world average in 2012, this ratio was well below the 7%, and 5% of developed countries (Zhang & Li, 2013:56), and also below public and private investment in the World Education Indicators (WEI) countries, such as Indonesia at 1,5%; Jamaica, at 9,9%; and China, at 4%. USAf (2016:3) warns that it would be difficult for higher education to play the required supportive role towards the government's development strategies, should the target spending on higher education of 1% of the GDP not be reached, or even increase to 1,5%, during the next ten years. One should also keep in mind that the distribution of these investments within the education levels varies greatly between primary, secondary and tertiary levels (UNESCO Institute for Statistics, 2003:10).

In addition to declining state funding, the running costs of HEIs have increased significantly during the past few years. For the period 2010/2011 - 2012/2013, the Higher Education Price Index (HEPI) was almost 2% more than the Consumer Price Index (CPI) for South Africa. HEPI, an inflation rate measure for HEIs, was generated by universities to determine their spending patterns. Key drivers of HEPI are, amongst others, increased academic salaries; operational costs (especially electricity); foreign exchange-based expenses (such as scientific journal costs, computer hardware and software, research equipment, and experimental consumables); and security and cleaning costs. These expenses have all increased at higher rates than the CPI (USAf, 2016:2).

Wangenge-Ouma and Cloete (2008:909) warn that the decline in state funding for universities has various consequences and implications, threatening their survival and rendering their effectiveness as institutions vulnerable (HESA, 2008:9). Firstly, South African HEIs are also faced with these major challenges resulting from decreasing state funding and increasing tuition fees: remaining competitive, ensuring academic quality, promoting equity and maintaining competitiveness in the global knowledge economy (HESA, 2008:12-13). Guskin and Marcy (2003:10) find it ironic that, amid HEIs are continuously improving their teaching, learning, student engagement, and use of technology, they are struggling to balance their budgets. They believe that HEIs are hard pressed to maintain quality teaching, learning and faculty work-life within this difficult, resource-restricted environment. Secondly, South African HEIs need to integrate into their cost structure a tuition-fee model that is appropriate to the vast variances of income and participation in higher education and that focusses on the development of human capital with high-level skills. Thirdly, increased, ongoing and sustainable support for needy students is



required from the National Student Financial Aid Scheme (NSFAS), to assist with growth and equity targets. Student debt is preventing many of these institutions from reaching financial stability (HESA, 2008:12).

In addition to the challenge of declining state funding and increased operational costs, the Ministerial Statement on University Funding 2015/16 - 2016/17 urges government departments to reprioritise their budgets and increase efficiency. Due to the current budget constraints and economic forecast for government, additional funding in the MTEF cycles will be limited. An appeal was made that government departments establish efficiency measures in order to generate additional funding for universities. Suggestions for such efficiency measures included reducing overhead costs; collaborating with other universities in limiting expenses; improving debt collection; exploring donor funding sources; and establishing processes that will generate third-stream funding (SA DHET, 2014:2).

Furthermore, the funding crisis has changed the relationship between the state and HEIs, causing greater focus to be placed on two other income sources, namely tuition fees and third-stream income (Carrol, 2006:77; De Villiers and Steyn, 2009:43; SA DHET, 2015b:20). According to Carrol (2006:77), HEIs are forced to raise larger portions of income from private sources, such as tuition, research, and consulting grants from private companies. Moreover, De Villiers and Steyn (2009:43) and SA DHET (2015b:20) maintain that HEIs have not yet absorbed the decline in government funding despite increases in third-stream income.

At an Education Forum hosted by Regenesys Business School, Ahmed Essop, the then Chief Executive Officer (CEO) of the Council on Higher Education (CHE), described higher education challenges as imbedded in the inability of young South Africans to enter quality higher education. He added that, even with the bursary and loan schemes available, the cost of higher education was still preventing scholars from poor backgrounds from entering these institutions (Regenesys Business School, 2013). In the meantime, senior secondary school output and as a result, the need for access to HEIs are increasing, putting additional pressure on these institutions (Simkins, 2016:53-59). It was also mentioned that 50% of students who enter higher education drop out without obtaining a qualification. This high dropout rate can be attributed to the articulation gap between school and university, as scholars are not sufficiently prepared for the challenges of higher education (Regenesys Business School, 2013). Simkins (2016:53-59) agrees that low student progression and high dropout rates indicate that South African universities have major output deficiencies. HESA (2012:13) warns that greater emphasis should be placed on input-based rather than on output-based funding to counteract the large number of students underprepared for higher education.

South African HEIs, together with others in Sub-Saharan Africa experienced an extremely high enrolment growth-rate in the period from 1991 to 2004 (UNESCO, 2006:190). Simkins (2016:53-59) adds that the rapid increase in graduates from the non-contact University of South Africa (UNISA) also puts more pressure on South African contact universities.

During the past five years, the South African government increased efforts to improve the state of education to show that education is regarded as a priority (SA DHET, 2015c). It was envisaged that National Treasury would increase funding to university education with more than 6% in 2017/2018 based the National Development Plan and government's 2014-2019 Medium-Term Expenditure Framework. This framework visualises that South African universities should provide access to the highest quality education and training by 2030. Thus, access to these institutions should be expanded and learning outcomes improved (SA Department of National Treasury, 2015:2).



The restructuring of South African higher education funding

Three subsidy formulas have been used in the South African higher education system since 1953. They are the Holloway (HF), the van Wyk de Vries (vWdV); and the South African Post-Secondary Education (SAPSE) formulas (De Villiers & Steyn, 2009:45; OECD, 2008:359). The SAPSE, based on a “follow-the-student” approach, was introduced in the 1980s. This formula uses enrolment numbers and course success as the basis for calculating funding allocations to universities. Funding levels are determined by the number of students enrolled in the Natural Sciences vs. those enrolled in Humanities, generating entitlements for institutions from available state funds (Simkins, 2016:46).

The restructuring of the South African HEI landscape that occurred in 2004 had two consequences for funding. Firstly, the funding system that was applied until 2004 distinguished between universities and Technikons, while the newly implemented funding system, which has been fully operational since 2007, does not. This new funding system uses the same set of rules for all HEIs, except in the case of DHET-set research output norms. Secondly, earmarked funding for institutions was implemented to steer the system (Simkins, Scott, Stumpf & Webbstock, 2016:325). In 2004, the SAPSE formula was replaced with a “state steering mechanism”, otherwise known as the New Funding Framework (NFF) (Simkins, 2016:46; Villiers & Steyn, 2009:45; OECD, 2008:359). Based on According to Simkins (2016:46), this framework using block and earmarked grants disbursements is goal-orientated and performance-related, guiding the distribution of government grants to institutions according to national goals and approved institutional plans. This distribution of funds to HEIs is meant to cover teaching delivery and research-related services and outputs based on three-year institutional plans, not to meet specific levels of institutional costs (Steyn & De Villiers, 2005:31-32). In addition, the new framework distinguishes between block grants and earmarked allocations (HESA, 2011:25), with block grants comprising more than 70% of the total state budget allocated to universities, and consisting of four sub-block grant categories, namely: funded teaching input, actual teaching output, actual research output, and institutional factors (HESA, 2011:25). Block grants are calculated on the number of student enrolment inputs; student completion outputs; research outputs; and two institutional factors which encompass the increasing diversity of student profiles, and smaller HEIs also being compensated. In this, NSFAS allocations and grants for academic development programmes form part of the earmarked grants (HESA, 2011:33). Earmarked funding allocations are intended to assist with merging and other development costs (Simkins et al., 2016:325). In order for the allocation of earmarked funds to be approved, a detailed project proposal has to be submitted to the DHET. As a result of managerial and administrative shortcomings at some universities - in most cases the same universities who required the funding – few receive this funding (Simkins, 2016:45).

In 2011, the Ministerial Committee for the Review of the Funding of Universities considered the revision of the funding framework for universities and proposed greater rewarding of graduate output. This change in the funding framework was to be in line with the international tendency to award output-based funding. The proposal to grant full funding to qualifying NSFAS loan students, covering all costs associated with their studies, was also reviewed. In addition, it was advised that non-qualifying students should be granted bank loans, supported by state securities (SA, 2011:292).

South African university income sources

Universities produce public and private goods. Public goods are produced through the generation of new knowledge and research, which lead to new national, commercial, technological, social



and political development. Private goods are produced in the form of graduates obtaining better-paying employment. Taking these into account, it is logical that the main funding of universities should be derived from public fiscus (treasury) and private investment (tuition) (USAf, 2016:1). The higher education sector in South Africa requires R63 billion in funding on an annual basis which traditionally used to cover most institutions' operating and capital expenses (Wangenge-Ouma & Cloete, 2008:906-907). Since tuition fees cover only between 30% and 40% of universities' budgets, DHET is currently HEIs' main source of funding through block grants (USAf, 2016:1-2).

South African public universities depend on three sources of income, namely first, second and third-stream income. First-stream income comes from annual budgetary allocations, as block and earmarked grants from the state. Tuition fees provide second-stream income, while third-stream income includes gifts, other grants, returns on investments, entrepreneurial activities, and research projects (HESA, 2008:15). The proportion of government funding to universities differ between institutions, but, on average, constitutes approximately 50% of these institutions' total income (SA MoE, 2004:2; Ouma, 2007:123). Adequate funding for HEIs is essential and is explained by Higher Education South Africa (HESA) (2009:6) as an appropriate balance of first, second, and third-stream income. Block grants, which are undesignated amounts intended to cover HEIs' teaching and research-related operational costs, account for approximately 70% of universities' first-stream income or state funding (SA DHET, 2014:4). Earmarked grants are for specific purposes (Steyn & De Villiers, 2005:33).

Tuition fees (in essence the price of education) are the biggest source of non-governmental income (HESA, 2008:20). These prices indicate the scarcity of products and are used to allocate resources. When prices are too low, wastage occurs, but prices that are too high result in under-usage. Prices are therefore set with the goal of optimal usage (HESA, 2008:25) and are based on the supply and demand of a product. Demand is determined by the usefulness of a product and decreases as the price increases. Supply is determined by a product's cost and increases as the price increases. This theory assumes perfect competitiveness between suppliers, which is not the case, especially amongst HEIs. This imperfect competitiveness could possibly result from demand for the product (educational programme) being too low as the client undervalues it; the benefits gained from the product being ignored by clients (students); the client's inability to afford the product; and the life-stage income of the client not being in line with the expenditure on the product (HESA, 2008:26). These "market failures", as they are known, can be corrected by enforcing use of the goods; providing subsidies as a benefit to the public; lowering the cost of the product; applying means-testing in the allocation of NSFAS student financial aid; and applying mechanisms, such as NSFAS and other forms of financial aid to align the individual's income with his/her expenses (HESA, 2008:26).

Reacting to declining government funding during the last decade, universities have been forced to rely more heavily on tuition-fee income. Various universities have not only adjusted their tuition fees through regular increases, but have also adapted how these fees are charged, so as to ensure cost recovery and maximum income levels (Ouma, 2007:194) since fees are increasing at higher rates than the state's contribution to NSFAS (HESA, 2008:10-11). Fees have also increased at rates higher than inflation (Wangenge-Ouma & Cloete, 2008:914). Wangenge-Ouma and Cloete (2008:910) find a positive correlation between the increase in tuition fees and the decrease in state funding of public universities. However, increases in tuition fees have not been without controversy and protests by government and students.

Government is mostly concerned with the fact that tuition fees are increasing at a higher rate than their contribution to NSFAS. Nonetheless, it has to be kept in mind that the cost of a course is related to and determined by market demand, thereby influencing the fees charged for a course.



In addition, tuition fees are determined institutionally as there is no guiding system or model in place about the determination of fees. The result is enormously varying fees for different programmes. Griesel (in Wangenge-Ouma & Cloete, 2008:914) agrees that the increase in tuition fees has been driven by the cost of provision, but adds that inflation and income-generation are other reasons for this incline. Obviously, there are consequences to increasing tuition fees, such as excluding poor South Africans who are already unable to afford, or even pursue, higher education and who already view education as a rare commodity meant only for the rich. Increased tuition fees also contribute to uncontrollable increases in student debt (Wangenge-Ouma & Cloete, 2008:915).

There are several models or processes that can be used to determine tuition fees. South African universities combine various of them to choose their fee structures. The flat rate or uniform tuition-fee model requires students to make a nationally set flat rate contribution towards their studies. In this, tuition fees are set by government; ignore the actual expenses related to higher education provision and institutional differences; and prevent competition. With a fixed-fee model, students are guaranteed that their tuition fees will remain stable for the duration of their studies. Actual higher education provision costs are not considered, and fees are only adapted for in-coming students. In the differentiated/variable model, tuition fees differ between study departments and institutions. Huge inconsistencies in fee-structures across institutions are caused by universities determining their own fees. The redistributive model takes the prospective student and his/her available disposable income into account when determining fees. Although fees are still set, prospective students from low-income families only pay what they can afford, while financially more privileged prospective students pay the entire amount. Available financial aid is used to link the number of students accommodated to tuition fees. The dual-track tuition fee model provides free, low-cost or government-subsidised higher education on a restricted merit basis, while other prospective students are admitted on a full-fee-paying basis only. This allows HEIs to enrol a number of additional students over and above those subsidised by government. A free market tuition fee model uses market demand, combining the costs associated with the providing a programme and the potential earning capacity of the graduates to determine the fees for a particular programme (HESA, 2008:20-22).

Since there is no particular system-level model for the important function of setting tuition fees, most South African universities opt for the differentiated/variable model, whereby increases in higher education tuition fees derive from various processes with some universities setting their tuition fees in direct correlation with competitor institutions' fees. Only a few institutions the total direct and indirect costs of providing study programmes to determine their tuition fees. Some institutions put fees at rates higher than the general inflation rate, as institutional costs rise at rates greater than inflation. Education economists have also proven that higher education inputs, such as journals, laboratory consumables and research equipment, are higher than inflation. In addition, academic remuneration should keep up with the economy in order to attract good-quality staff (HESA, 2008:22-24).

Students, worldwide, have been resisting tuition fees. In a country like South Africa where extreme inequalities are present, especially poor students resist increasing tuition fees. This is mostly understandable since high and increasing tuition fees inhibit access to higher education for the poor student market (HESA, 2008:34). Inevitably, tuition fees have become a major area of debate and concern in South Africa. The #FeesMustFall-campaign, which initially started with students blaming the fee crisis on universities (Cloete, 2016:118), has led to literally scraping the fees of most students. It has to be kept in mind that tuition fees, together with government subsidies, and income from investments are the main income streams for public universities while



national and international donations, contract research, sales of goods and services, and research grants are additional sources of income (Wangenge-Ouma & Cloete, 2008:911).

Considering that the South African government is placing pressure on universities to curb increasing tuition fees, these institutions are shifting their focus to greater third-stream income generation. Sources of third-stream income vary from donations and investments to entrepreneurial activities. According to Professor Rolf Stumpf, former Vice-Chancellor of NMMU and Chairperson of the HESA Task Team producing the fees report, universities find it difficult to obtain third-stream income (Macgregor, 2008) because of weak relationships between universities and businesses; South Africa's lack of a sound industrial-business base; insufficient tax breaks for companies and individuals; weak structures for administering alumni and fundraising; the absence of a "giving culture"; the inadequate research capacity of some universities; and the disadvantaged geographic and economic environments of several institutions (HESA, 2008:20; Wangenge-Ouma & Cloete, 2008:912-913). In addition, Wangenge-Ouma and Cloete (2008:913) attribute another challenge to third-stream income to the annual volatility of non-governmental or market sources. Therefore, despite the challenge of its declining funding, government remains the most stable source of income for public universities. Consequently, an appeal was made that government departments establish efficiency measures in order to generate additional funding for universities. Suggestions for such efficiency measures included to reduce overhead costs, collaborate with other universities in saving on expenses, improve debt collection, explore donor funding sources, and establish processes to generate third-stream funding (SA DHET, 2014:2).

It is worth noting that not all income streams necessarily contribute positively to the financial health of a public university. Income streams such as research grants and donations are usually tied to specific purposes or activities, and as such, institutions often do not have discretion over the spending thereof. Research grants, for example, cannot be used to cover teaching-related expenses (Wangenge-Ouma & Cloete, 2008:912). Conversely, South African universities have found it difficult to generate third-stream income due to a lack of stable linkages between universities and the corporate sector; poor tax incentives for charity; the business sector not contributing towards skills development; and the untapped relationships with alumni (Gastrow, 2016).

The Central University of Technology (CUT) originated from a Technikon, thus situating its Hotel School in a restructured HEI that is experiencing all of the challenges discussed above. It therefore does not come as a surprise that this department should also be struggling to balance its income and expenses. Due to distinct academic and operational-specific pressures, it is not functioning in a financially sustainable manner and is dependent on other departments for additional financial resources.

Financial management strategies and the management of resources in HEIs

Financial resources are vital to the success of any organisation. Three types of financial resources have to be managed well for organisational success, namely (i) resources flowing into the organisation (returns on investment); (ii) resources held by the organisation (cash and working capital); and (iii) resources flowing out of the organisation (payments such as expenses and salaries). Resources, especially the availability or scarcity thereof, influence an organisation's current situation and future sustainability at a time when organisations are increasingly pressurised to be responsible and financially sustainable (Louw & Venter, 2013:7). According to León (2001:17-20), financial sustainability is based on four pillars which are: (i) strategic financial



planning; (ii) income diversification; (iii) sound administration; and (iv) own income generation. In the case of financial management, Du Toit et al. (2010:419) aver that financial management is “the art and science of obtaining enough finance for a business at the lowest cost, investing in assets earning a return greater than the cost of capital, and managing the profitability, liquidity and solvency of the business”. Resources can be managed effectively, through budgeting.

A budget is a tool to ensure the availability of resources required for educational activities in order to meet educational objectives. Resource management is the most important activity within a departmental budget (Du Plessis, 2013:77). Under the current constraints, it is apparent that HEIs must find ways of doing more with less in managing financial resources (Promades, 2012:63). As a consequence, it is becoming increasingly important to prioritise, reduce, and focus on the truly important issues without putting the institution at risk (Blustain, Buck, Carnaroli, Golding, McGurty, Suttentfield & VanDerhoof, 2009:3). Financial management requires that HEIs supply students and faculty (raw inputs) to render services to students (clients), using revenues to pay for production costs. Thus access to more financial resources would enable institutions to improve production inputs. The Revenue-Centre Management (RCM), also known as Responsibility-Centred Management, is one of the processes used to improve productivity and innovation. The Hanover Research Council (HRC) (2008:2) sees this model that is being adopted by public universities as a very efficient and effective budgeting system, grouping a university’s academic units into responsibility centres according to similar purposes and funding sources. Each of these centres has a manager, usually an academic Dean, who is awarded decentralised decision-making authority. RCM promotes an entrepreneurial management culture, as it provides for both academic authority and financial responsibility (Vonasek, 2011:497-498). The benefits of the effective implementation of RCM are numerous and include enabling managers to have higher levels of decision-making authority seeing that decisions are made closer to the point of their impact, thus increasing managers’ accountability and the practicality of the decisions (Strauss, Curry and Whalen in Vonasek, 2011:499).

Another commonly used approach is activity-based costing (ABC). This is a cost accounting system that involves determining the full cost of services and products, identifying activity centres, revenue or cost units, and assigning resource costs to it. In this way, institutions can identify outputs or cost objects since they are able to more strictly connect costs with results. According to Lundquist, Trussel and Bitner (in Dickeson, 2010:5), this can be effective in budgeting, evaluating, reporting and pricing decisions (Dickeson, 2010:4-5).

Since the purpose of budgeting is to allocate resources to the requirements of the institution or department (Barr & McClellan, 2011:57), insufficient financial resources are regarded as the largest threat to higher education. This renders the management of available resources crucial to the management of any institution (Goldstein, 2006:5-6). As far back as 1959, Penrose (in Sirmon, Hitt, & Ireland, 2007:275) emphasised the importance of resource management in value creation. In addition, Promades (2012:62) stresses the careful assessing of the allocation of scarce resources in buffering against the financial challenges experienced by HEIs. In combatting the difficult financial challenges HEIs face, Garrett and Pooch (2011:882) propose that these institutions require a solid plan to select and implement their management and resource allocation strategies. They also advise that HEIs make full use of their available resources in determining the correct path of the institution. According to Oduoza (2009:134), universities in the United Kingdom (UK) tend to develop institutional-fitting resource allocation models (RAMs) in an attempt to determine a cost-effective approach to cost and pricing of teaching and research activities. A RAM is a financial management model used to balance expenses, benefits and threats, while ensuring commitment from the stakeholders (Phillips & Bana e Costa, 2005:3). The allocation of resources affects departments in various ways: it determines the lecturing staff hired; the number



of students taught; as well as the extent of the content taught. On the other hand, the workload of lecturing staff and the quality of these staff members, affect the research standards, as well as the productivity levels of staff. Therefore, in order to understand the shape of knowledge, resource allocation amongst departments should be understood (Volk, Slaughter & Thomas, 2001:387).

Various reasons lead to variances in funding allocation between departments. Differences in input costs, such as staff salaries and the equipment used in teaching different subjects, will result in differences in student-staff ratios. This ratio is dependent on what is deemed the most effective mode of instruction according to the content of the subject. For example, smaller classes are required for foreign language teaching, while for a subject like Economics, the learning outcomes can be achieved even in larger groups. This will result in higher staff input costs in certain subjects. Research outputs per department will also result in a difference in the staff-student ratios, thus complicating the allocation of resources even more. Full-time, higher-level lecturing staff increase input costs even further, especially where lower-level, part-time lecturing substitutes will not suffice in producing graduate outputs (Johnson & Turner, 2009:177). These factors have negatively impacted the financial resources allocated to CUT Hotel School, to the extent that its financial sustainability is threatened.

Methodology

In research, the qualitative approach allows the researcher to see the bigger picture (Leedey & Ormrod, 2015:99). Thus, most of the data will be in the form of words, rather than numbers (McMillan & Schumacher, 2010:11; Lapan et al., 2012:8) and will comprise semi-structured, but enlightening, information obtained from a small sample (Leedey & Ormrod, 2015:99). Based on this reasoning, and the fact that the qualitative approach allows phenomena to be viewed from the participants' perspective (McMillan & Schumacher, 2010:12), the qualitative research approach was employed. Also, Miller et al. (2004:329) add that a qualitative study is flexible, as it enables a researcher to also obtain and respond to unanticipated factors that arise during the course of the study. In line with the qualitative approach, the specific research strategy used was the grounded theory which, Strauss and Corbin (in Fouché, 2002:273) argue, allows a researcher to develop a theory from data using the iterative approach (Bryman, 2012:387; Thornberg & Charmaz, 2012:41; Charmaz, 2014:23). Semi-structured, face-to-face interviews, comprising a few central questions, together with other open and closed-ended questions were conducted with the HoDs, senior staff and staff concerned with financial management of top international hotel schools and South African universities' hotel schools.

The purposive sampling approach was employed by applying criterion sampling (Bryman, 2012:419; Nieuwenhuizen, 2007:79), as all the participants were sampled to meet a specific criterion. Internationally, six of the hotel schools on the list of best hotel schools in the world are situated in the Netherlands and Switzerland; four of which are under the top five. One of these is also on the Hotel Schools of Distinction list. As these two countries are geographically close to each other, and considering time and budgetary constraints, the researcher sent an e-mail message to all the hotel schools in Switzerland and the Netherlands that are on these two lists, requesting interviews with their HoDs. The researcher then visited all the hotel schools whose HoDs agreed to an interview. Locally, the researchers considered all previous Technikons, contacting all the schools through a letter, requesting an interview with each school's HoD. Individual meetings were scheduled with the HODs who responded positively. Only one of the schools did not respond positively. Therefore, six hotel schools' HoDs, Senior Staff, and other staff concerned with the schools' financial management formed part of the sample. The use of a small sample in a qualitative research approach is justified when using interviews as the methodology (Silverman, 2013:203).



Strauss and Corbin (cited by Fouche, 2002:273) posit that, when applying the grounded theory, it is important that data collection and analysis take place simultaneously and as quickly as possible. Thus, the process of data analysis entailed finding patterns in, reasons for, and transcription of the data soon after each interview (Henning et al., 2004:6). The inductive approach was followed where data was gathered first and analysed after the data was interpreted and made sense of, and “lessons learnt” (De Vos, 2002:344) documented so that generalisations could be made towards answering the research questions.

Discussion of the main empirical findings

Lessons from the literature

As per the literature, the benefits of higher education cannot be disputed. The return on investment of higher education for the individual, the community, the country, and worldwide is evidenced as higher education institutions (HEIs) continue to play their traditional role. However, being subjected to tremendous challenges, including technological changes, changing student demographics, rising consumer expectations, increased global competition, the information age, and the rise of the knowledge-based economy, universities are regrettably experiencing increasing financial pressures globally. In addition to this, South African universities, in particular, are further pressured to equip people with high-level skills for the labour market; produce new knowledge; and provide opportunities for social mobility, while strengthening social justice and democracy. With this in mind, it is only logical to conclude that adequate funding is required to sustain these institutions. However, this is not the case, as, globally and nationally, the decline in funding is a common occurrence. Funding of higher education in South Africa in particular has been debated in the recent past, focussing on the adequacy, as well as the possibility of free higher education. Thus, similar to universities worldwide experiencing declining financial support from governments, South African universities have been forced to adopt privatised characteristics by attracting more fee-paying students and implementing additional income-generating activities. On top of the additional income, universities are also pressured to implement cost-effective strategies that include increased resource attainment and more effective resource allocation and maintenance.

The running costs of these institutions have increased significantly during the last few years, thus further increasing the impact of the decline in state funding. The South African government therefore urges HEIs to reprioritise their budgets and increase their efficiency, as it is predicted that additional future funding to higher education will be limited. HEIs are also prevailed on to generate additional funding for universities; reduce overhead costs; collaborate with other universities to save on expenses; improve debt collection; investigate donor funding sources; and establish processes that will generate third-stream funding. This resource-restricted environment in which HEIs find themselves has severe implications, as, amongst others, the survival, competitiveness and academic quality of said institutions may be threatened.

Other challenges with which the South African higher education sector is faced, include young South Africans’ inability to enter quality higher education due to financial reasons; the struggle to gain access to an HEI because of the increased output of secondary schools; and the relatively high (first time entrant) FTE dropout figures. Another challenge is the restructuring process that South African public higher education has undergone from 2002 - 2005. This process subjected former Technikons to suddenly different goals, and having to adapt to an institution-specific focus.

Public universities depend on first, second and third-stream income. In 2004, a new “state steering mechanism” was implemented, known as the New Funding Framework (NFF). Based on



block and earmarked grants, this framework is goal-orientated and performance-related, guiding the distribution of government grants to institutions according to national goals and approved institutional plans. The performance of HEIs is measured against student enrolment figures, student equity, the pass and graduation rates of students, staff equity, and staff members' qualifications and research outputs. Based on the afore-mentioned, funding to HEIs is intended to cover the expenses of teaching delivery and research-related services and outputs and is based on a three-year institutional plan.

First-stream income, in the form of block and earmarked grants, depends on approved student enrolment numbers, qualifications awarded, research outputs, and specific institutional data. Second-stream income, the second highest source of income after state funding, comprises tuition fees. To counteract declining government funding and tuition-related pressures, HEIs are forced to increase not only their student fee income, but also their third-stream income, such as national and international donations, contract research, sales of goods and services, and research grants.

The above pressures have led HEIs to look for sustainable financial management strategy development with the main objective being to optimally positioning the institution's financial sustainably. Sustainability requires that strategic decisions be maintained over a long period of time (Oxford Dictionaries, 2016). Therefore, in order to reach its set objectives, an organisation's financial sustainability depends on well-defined strategies, as well as implementation thereof. Sustainability involves being aware of organisational strengths and weaknesses, the specific allocation of available resources (financial included), and the estimation of environmental changes. Financial sustainability ensures that an organisation obtains revenue, sustains productive processes, continues to grow, and achieves its objectives. It also draws on strategic financial planning, the diversification of income sources, thorough administration procedures, and finance and own income generation. Since it became clear that HEIs must find ways to achieve more with the same amount of resources, it is more important to prioritise, reduce spending, and focus on truly important issues, without putting the institution at risk as access to more financial resources enables an institution to improve its production inputs. Seeing that HEIs produce various outputs in the areas of teaching, research and public service, these outputs are often difficult to measure and define making planning for financial sustainability is an integral part of an organisation's strategic planning function. Institutions use budgets for their financial planning and control, basing decisions on the levels of spending and resource distribution amongst organisational sub-units. In HEIs, budgets have two functions, namely: they serve as an instrument to allocate resources internally, and they allow institutions to make different types of claims from the state in order to acquire resources.

Responsibility-centred budgeting (RCB) is a market-like, decentralised budgeting practice that provides functional units within a university with more autonomy in decision-making, as opposed to that of centralised budgeting management. Autonomy within the units allows these units to act with self-interest, focusing their decision-making on efficiency, cost control and income regeneration. Decision response time is reduced; an increased sense of commitment is found; efficiency, and more specifically cost-efficiency, is increased; and long-term planning is improved.

The allocation of resources is as important as the actual owning thereof. In combatting the financial challenges faced by HEIs, the careful allocation of scarce resources in order to improve financial sustainability becomes crucial. This is because the allocation of resources affects departments in various ways: it determines the lecturing staff hired; the number of students taught; as well as the extent of the content taught. On the other hand, the workload of lecturing staff, and the quality of these staff members, affect the research standards, as well as the staff's productivity



levels. Therefore, understanding the shape of knowledge requires understanding resource allocation amongst departments.

Fixed budgets are used in non-competitive conditions of allocation, while performance-based allocation is used under competitive conditions. These two types of RAM have different effects on individuals' levels of activity. The fixed budget, or stable allocation, is not linked to performance, and therefore the level of activity depends on the motivation of the individuals themselves. This often results in low activity and performance. However, with performance-based allocation, individuals' levels of activity depend on the incentives connected to the allocation system. In this scenario, high levels of activity are required to maintain required levels of funding. Input costs, such as staff salaries and the equipment used in teaching different subjects, differ between different departments. The staff-student ratio which determines the staff expense depends on what is deemed the most effective mode of instructing the content of the subject. Based on the literature, the conclusion is that the development and application of reliable financial management tools are requirements of helping South African universities' hotel schools overcome the challenging financial environment in which they find themselves.

Dropout rates and how they are managed to ensure financial sustainability

For the international hotel schools, the major findings were based on the answers provided by respondents. Hotel School 1 enrolls 700 students annually, with a dropout rate of 12,5% in the first year, and an average dropout rate of 25% to 30% towards the end of the fourth year. Hotel School 2 enrolls between 960 and 1 100 students per semester and has an average dropout rate of 5%. Hotel School 3 enrolls 600 to 800 students, of which, on average, 8% to 12% drop out, with 15% dropping out in the first year. Hotel School 4 enrolls 700 students per year, with the intake capped at 350 per semester. They thus have two intakes per year. Their average dropout rate is 10%. This information is best captured in the table below.

Table 1: Dropout ratios

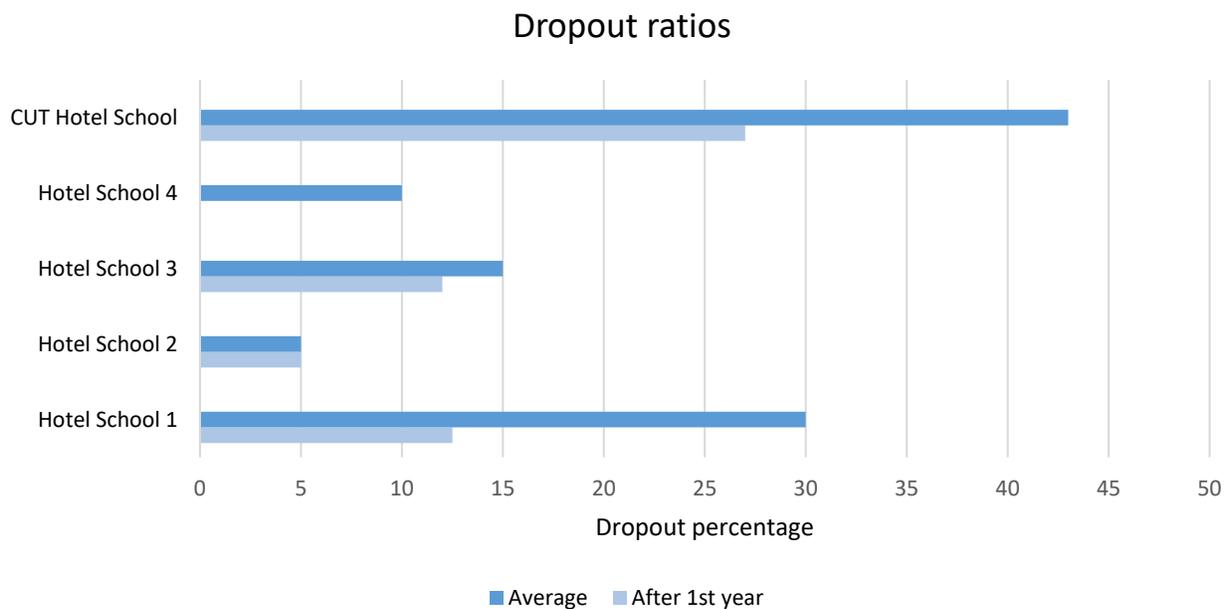




Table 1 shows that the CUT's Hotel School has a turnover rate of as high as 42%. Data from CUT records indicate an average rate of 27% after the first year (for the years 2010 to 2014); and an average cumulative dropout rate of 43% (for the years 2010 to 2014). From Table 1, it is evident that the international hotel schools' dropout figures are significantly lower than that of the CUT Hotel School.

To gain further insight, interviewees from the international hotel schools were asked to provide reasons for these dropout figures. Their responses are captured as follows: Hotel School 1 indicated that its relative low dropout rates could be ascribed to good selection processes. The respondent warned that a small student intake, such as 85, combined with a high dropout percentage, "hurts" a department and advised that a better, stricter selection process of a higher quality should be implemented. School 1 explained that its selection process is very strict and takes a full day to complete. During this day, the prospective student's language (English) and numeric skills, and the presentation of his/her skills are tested. "You have to look at their potential." The respondent from Hotel School 2 is quoted as saying that their dropout figure is a "*minor problem, as the location of the Hotel School is protective in the sense that, if you drop out, you have to go to a completely different location*". The respondent added that students who were anticipating dropping out had to give two months' notice as well. In addition, the staff of the school have a meeting with those who drop out to discuss their reasons for doing so. Students at this school are also only admitted to study if they have work experience in the hospitality industry. Hotel Schools 4 indicated that their relatively low dropout rates could be ascribed to very strict selection processes. The respondent emphasised the importance of a stringent selection process stating: "*If you want to become the best, you need to attract the best*". This respondent stated emphatically that the marketing process needs to focus on attracting the best and can only be successful if sufficient funds are invested in therein, through communication and websites, as these are the tools used to attract the best students. The respondent further indicated that once applicants have undergone a rigorous selection process and been accepted, it is important that they be accompanied to the best of the school's ability throughout their studies. The interviewee provided the following suggestions: offer classes in smaller groups, provide them with sufficient online support, and provide support through mentorship programmes. In addition, School 4 advised that the selection process needs to be robust enough to ensure that the best applicants are selected out of the pool of applicants.

As is seen in the Table 1, the dropout rate of the CUT Hotel School has been alarmingly high over the past few years, with annual rates as high as 42%; an average rate of 27% after the first year (for the years 2010 to 2014); and an average cumulative dropout rate of 43% (for the years 2010 to 2014).

From the findings of the interviews, it was concluded that the international hotel schools' dropout figures were significantly lower than that of the CUT's Hotel School. This translated into bad debts and unrealised budgeted incomes which caused financial distress to the CUT Hotel School.

Staff-to-student ratios

The staff-student ratio is greatly affected by the type of instruction, whether theoretical or practical, provided to students and this then impacts on the number of academic hours required. These, in turn, affect the salary expenses of an academic department. The researcher was interested in benchmarking the hotel schools' staff-student ratios for theoretical and practical classes, the latter referring to classes conducted in the kitchen or restaurant. The staff-to-student ratio for practical classes at the CUT's Hotel School is between 1:12 and 1:16, which is directly linked to the capacity of the kitchen to effectively and safely offer culinary classes. The staff-to-student ratio for theory classes ranges between 1:45 and 1:90.



The following answers were provided by the respondents from the four international hotel schools. Hotel School 1 has 105 lecturers and instructors for a total of 2 400 students. This amounts to an average staff-to-student ratio of 1:23. The interviewee explained that the number of classes conducted in smaller groups by instructors are not significant since they are a business school; however, on average, theory classes are conducted for 24 students per group. Hotel School 2 employs 80 teaching staff (which includes part-time lecturers and instructors) for 1 100 students. This is an average staff-student ratio of 1:14. There are 20 to 30 students in a theory class, with 40 students being the maximum, and only five to ten students in a practical class. Hotel School 3 offers theory classes to groups of between 25 and 35 students, while practical classes in the kitchens are presented to between 12 and 13 students. The interviewee explained this low ratio in the following manner: “we have to as we really believe in personalised service”. The interviewee provided an example of a class taking place in the fine dining restaurant, where “the lecturer was teaching six students”. The staff-to-student ratio at Hotel School 4 is 1:30, with a maximum of 12 students in a practical class.

The table below provides a comparison of the staff-student ratios of the South African universities’ hotel schools. As seen from the Table above, the staff-student ratio for practical classes is relatively low overall, and ranges between 1:12 to 1:22, with a specified maximum number of students. Without exception, all the interviewees confirmed that they have to divide the students into groups, and have them rotate in cycles, with lecturers repeating classes. This increases the lecturers’ academic hours, and thus results in the schools having relatively high salary expenses.

Table 2: Staff-student ratios in local schools

1.	2. Theory classes	3. Practical classes
4. Hotel School A	5. 1:60	6. 1:12
7. Hotel School B	8. 1:160	9. 1:15 (22 max)
10. Hotel School C	11. 1:120	12. 1:16
13. Hotel School D	14. 1:60	15. 1:15
16. Hotel School E	17. 1:150	18. 1:22 (32 max)
19. Hotel School F	20. 1:40	21. 1:32

It can be concluded from the above statistics that although the staff-student ratio for the CUT Hotel School is lower than most of the other local hotel schools and ideal for educational purposes, it has high cost implications which will invariably threaten sustainability.

Income sources and the manner in which they are managed

Financial sustainability can only be achieved when income is maximised. Additional income can be generated by South African universities’ hotel schools either by utilising their operational facilities or offering short courses. Therefore, it is important to determine which strategies the schools apply in order to increase their income.

On the international front, as Hotel School 1 is a government institution, 50% of its total income is received from government. Government fees are received on an annual basis, and again upon graduation. On the other hand, Hotel School 2 receives 98% of its income from students, while 1% is received from government, and 1% is obtained from research. At Hotel School 3 and Hotel School 4 also, student fees are the main income stream. Moreover, students at Hotel School 4



are expected to pay infrastructure fees for the basic use of the School's buildings and facilities, as well as a food and beverage pre-payment, covering meal expenses while they are studying at the School.

As additional income, or more referred to in this article as "third-stream income", is such a critical source of income for the CUT Hotel School, the researchers wanted to get an indication of the importance of third-stream income for these top international hotel schools. At Hotel School 1, an additional 1% of total income is generated through research; however, the School intends to increase this percentage. First-year students at this hotel school live and study on campus; therefore, a portion of the course fees paid by students is for accommodation and meals, which might be regarded as an additional income stream. The two restaurants are open to the public and are managed by instructors and students. A reasonable profit is made from these restaurants. Hotel School 2 did not indicate any additional income sources, and mentioned that its restaurants are managed by, and for, the students. Hotel School 3 increases its additional income sources by offering summer schools, during which high school scholars visit the School for two weeks to experience the School and the courses offered. This is also used as a marketing tool through which the scholars can experience the Hotel School and could be persuaded to study there. Another income stream is generated through other summer courses, such as French, German and English language courses. The restaurants at Hotel School 4 are open to the public and generate a small additional stream of income.

Locally, the respondent from Hotel School A said the School relies mainly on functions and events in the its function venue and restaurants to increase its income and no additional short courses are offered. Hotel School B leases their kitchens to another HEI that offers culinary courses during recess periods. Wine courses are also offered to students of other departments within the broader institution. Hotel School C obtains income from its restaurant and conference centre. Hotel school D does none of these. Apart from leasing their conference facilities, the two hotel schools that were deemed financially sustainable (Hotel Schools E and F) offer short courses in Hospitality Management as a block-release programme, building credits towards a degree. The short courses are offered to trainees who are currently employed in the industry. Hotel School F ensures sufficient enrolment numbers through the marketing department, while Hotel School E annually sends invitation letters to hotels, inviting their employees to enrol, as these courses are then usually paid for by the respective hotels as well. Additionally, Hotel School E utilises its restaurant, boardrooms and student kiosk to increase their income, while Hotel School F leases its facilities and conference rooms, and obtains income from events, its restaurant and coffee shop. Hotel Schools A, B, C and D acknowledged the need to offer short courses and intend to develop and offer such in the future.

In terms of the use of operational facilities to support the generation of additional/third-stream income, the following observation was made: the building in which a hotel school is housed obviously determines the facilities available to utilise for additional income. The researcher was interested in determining the extent of the operational facilities of other South African universities' hotel schools. The schools have the following operational facilities: Hotel School A has one operational kitchen, one fine dining restaurant, a first-year restaurant, and a function venue; Hotel School B has kitchens and a wine laboratory that are used for additional income generation, as mentioned in the section above; Hotel School C uses its restaurant and conference centre to generate additional income; the student training restaurant, with a small conference area, is used at Hotel School D to raise additional come; Hotel School E uses its restaurant, boardrooms and student kiosk to generate additional income; and Hotel School F uses its operational facilities which include a skills kitchen, industrial kitchen, commercial kitchen, bistro, coffee shop, and conference rooms for fund generation.



Like all academic departments, it is expected that hotel schools will be faced with the problem of limited operational hours which could be an important aspect in generating third-stream income. Therefore, it was deemed important to determine the extent to which this was the case at South African universities' hotel schools. Respondents were therefore asked to provide answers to the questions: "What are the operational hours of your hotel school's operational facilities?" and "Do you host events over weekends or holidays?"

The responses suggest that the operational hours of Hotel School A are extremely limited. The school's two restaurants are open for limited sessions (either lunch or dinner) two to three days per week. The restaurant of Hotel School B forms part of another department's budget, and thus does not influence the school's income. For this reason, the hours were not provided. The restaurant at Hotel School C is only open for lunch five days per week. This respondent stated: *"In the past, when the restaurant was open to the public, it was open seven days per week. We had many problems with it, that is why we do not operate it over weekends now". The restaurant is only open to "internal clients"*. Hotel School D offers breakfast and lunch and operates its restaurant five days per week. Hotel School E's restaurant is open seven days per week for breakfast, lunch and dinner. Hotel School F offers breakfast, lunch and dinner; operates its restaurants five days per week; and only accept weekend functions that make "financial sense".

Based on these results, the conclusion reached is that the CUT Hotel School will be able to increase its income substantially through mainly third-stream income-generating activities such as consultancy, online short course offerings, improving its marketing communication through alumni, etc.

Major expenses of hotel schools and how they are managed

Referring to the high cost of offering courses in the Hospitality Management field, Hotel School 4 confirmed: "Teaching Hospitality costs a lot. A lot more than Mathematics. It costs more because of facilities. Therefore, your (referring to the CUT Hotel School) size is a key factor". He also indicated that the school should have more than one intake of FTEs per year, as this will increase the number of students. Hotel School 1 also firmly suggested that the CUT Hotel School increases its student intake. He explained, by saying that, if you look at the world today, "the hospitality industry is the fastest-growing industry in the world, and, even for South Africa, it is a very important industry". He suggested that a good plan needs to be compiled, in which a strong case is made that hospitality growth will lead to employment growth and use this to request an increased intake from the institution.

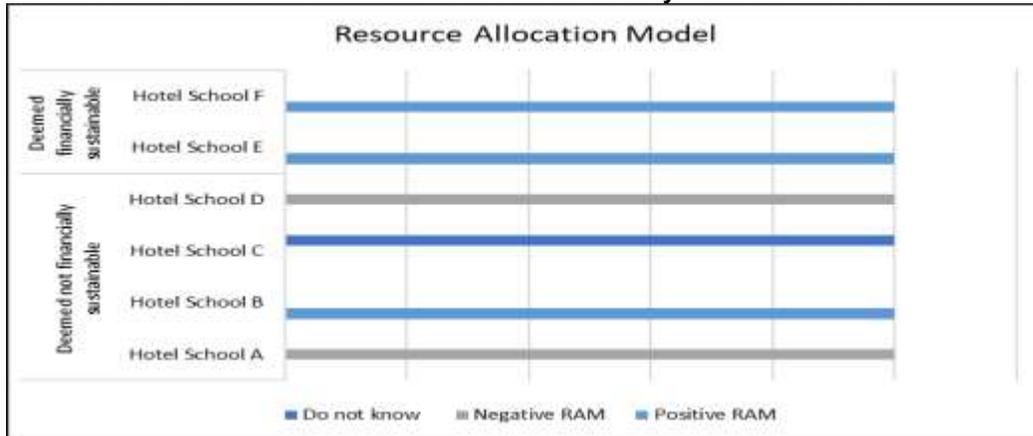
The CUT's Hospitality Management students are required to purchase a knife set, as well as comprehensive and all-inclusive uniforms. There are thus additional costs, beside that of the course, for students enrolling at the CUT Hotel School. This increases total tuition fees substantially. The consequent relatively high tuition fees are considered a contributing factor to the challenge of recruiting and retaining students. Therefore, the researcher needed to obtain information on whether students at these international hotel schools are also expected to pay additional fees such as those mentioned above. Hotel schools 1, 2 and 3 require students to pay additional fees for their uniforms, as well as purchase knife sets. Hotel School 1, however, mentioned that the practice of purchasing a knife set will be ceased in the near future, and supported this decision by saying that: "We do not educate chefs, we are a business school". Hotel School 2 also has an additional travel expense -covered by the school and are included in its tuition fees - for trips to be undertaken by students.

It can be concluded from the empirical evidence that the CUT Hotel School manages costs well, with regard to expenses, when compared to practices elsewhere.

Financial management models in use

Table 3 displays the six local hotel schools according to their deemed financial sustainability, as well as the positive or negative stance based on the RAM used by their institutions.

Table 3: The six local hotel school’s financial sustainability in relation to RAM



The CUT uses a RAM model that empowers budget holders by distributing resources earned by the university for their own usage. It is evident that the CUT’s Hotel School does not compare well with its peer institutional departments. Hotel Schools D, E and F responded that their institutions used RAM, while Hotel School B indicated a different model at its institution. Hotel School C had no knowledge of such a model, or whether a similar model was used at its institution.

From Table 3, it can be seen that both hotel schools deemed financially sustainable (E and F) know the RAM used in their institutions, and that their departments’ RAMs are positive. Of the other hotel schools deemed not financially sustainable (A, B, C & D), two (A & D) admitted that their RAMs are negative, while one (C) indicated that it is not aware of the RAM used at its institution.

Based on this information, it is concluded that the CUT’s Hotel School can learn from the financial management models of Hotel Schools E and F.

Other means to ensure financial sustainability

Findings concerning increasing profit and lowering expenses include, in the words of Hotel School 1, *“If your expenses are more than your income, you are out of business”*. Therefore, the respondent advises that *“creativity is the major thing you need when attempting to increase income”* and adds: *“The only way you can live in the future, is if you have a growth rate that is much higher than your costs. However, your fixed costs stay fixed. There is something we call the ‘engineered cost’ in Economics that refers to calculating the costs of providing a service, the so-called unavoidable cost. In Higher Education, this engineered cost, which is unavoidable, is the teacher standing in front of the class. Part of this engineered cost includes paying for the development of course material. These costs can be managed by no longer developing course material internally, but rather purchasing another university’s material on an annual basis and paying them an annual fee for such material”*. The respondent also touched on the #FeesMustFall- campaign, noting two realities, namely that *“government funding will probably not*



increase in the near future"; and secondly, *"hotel schools will not be able to increase tuition fees in the near future"*. He quite rightly suggests: *"Your available income is probably not enough to cover your fixed costs"*. The respondent from Hotel School 1 advised that additional staff should be brought in to run the restaurants, enabling them to be open more days in the week, and thereby increasing income. Another suggestion was that the restaurant should be open five days a week, and not just two days. He suggests that students be taught on Mondays, and then manage the restaurant for the week, with the instructor's guidance. Hotel School 4 advised that ways need to be sought to decrease costs, while preserving, or even increasing, the quality of education. One of the ways in which costs can be decreased, is if contact hours are decreased. *"It's possible, thanks to digital technology"*, he says. As digital courses can also be regarded as a marketing and communication tool, the CUT Hotel School needs to *"seriously invest"* in it. He suggested that diplomas be offered online, or partially online with students obtaining specific certificates by completing online modules, to be converted into diploma after a few weeks of practical contact classes. By following this approach, *"more graduates will be produced than you are able to deliver with your infrastructure"*. Hotel School 4 advised that, in order to increase income from research and other sources, lecturing staff must be motivated to become involved in research, consulting and personal development.

Other findings that can help increase income are related to offering short courses, marketing, curriculum development, cooperation and formation of alumni desks. Firstly, there was agreement among respondents that additional income by offering short courses, especially online ones, can boost the financial position of hotel schools. They also agreed that such short courses target industry staff and should be done through collaboration with hotels. Hotel Schools 2 and 4 proposed consultation work for hotels to drive income. The importance of marketing was also emphasised. Hotel School 4's respondent echoed the importance of marketing by stating: *"marketing should focus on attracting the best in order to become the best"*. He advised that sufficient funds be invested in marketing, as this is a communication tool to attract the best applicants. Hotel School 2 supported this view by stating: *"if you want to make profit, you must be the best"*, and *"if you want to be the best, focus on a niche market"*. Hotel School 3's success is attributed to its main *selling points*, i.e. its slogans: *"employability"* *"a career"* and *"it is very important to offer a bachelor's degree, but it is more important to offer a job"*.

Three of the top international hotel schools offered advice on improving financial sustainability by means of improved curriculum development. Hotel School 4 advised that: *"You must mix go digital with your courses"*, and this was echoed by Hotel School 1, which suggested that more information and communication technology (ICT), entrepreneurship and digital literacy should be included in a hotel school's curriculum. The respondent added that more applied research to solve the problems of the industry should be undertaken. In addition, Hotel School 2 suggested diversification and specialisation, or rather super specialisation. He said: *"If I was in your shoes, debate the case of super specialisation – to offer something completely unique, that the others don't offer"*. On cooperation, Hotel School 2 suggested collaboration with wine producers on offering wine management in the school. He further suggested identifying the unique *"thing"* that graduates will receive, that they will not obtain from any other hotel schools. Hotel School 1 suggested co-operation while Hotel School 3 referred to the importance of co-operation, with industry partners. The latter mentioned that their school closely collaborates with more than 90 companies through an international recruitment forum. During this forum, industry partners, or more specifically hotels, visit the school, and recruit students via interviews.

The importance of a strong alumni network was emphasised in all the interviews with these international hotel schools. Hotel School 4 explained the importance of a well-established alumni network by saying: *"Alumni is a key of employment; the brand and key of training"*. Hotel School



1 added that a well-managed alumni charter is significant to them, as they present summer courses to alumni and the public. He mentioned that alumni charters all over the world are used in the “recruitment of students, realising placements, guest speakers”, and is an important tool to success. He used the important aspect of “life-long learning” of alumni to explain the reasoning behind these courses. The respondent provided examples of digitalisation and financing, to be written into summer courses for alumni. Hotel School 2 emphasised the importance of alumni and advised that time be spent on marketing the hotel school by making videos of alumni. The interviewee suggested that ambassadors must be identified from alumni of whom videos can be made, telling their success stories and biggest achievements, thereby motivating viewers. Videos can be shown on social media, the school’s website as well as on a television screen in the school. These videos will not only attract new students but motivate and inspire current students to complete their courses, thus decreasing the dropout rate.

Conclusion and recommendations

In terms of practice, recommendations are made to assist the CUT and other hotel schools finding themselves in similar financial sustainability quagmires. Firstly, since increasing teaching output is essential to improving the financial sustainability of hotel schools, this could be accomplished through a proper hotel school marketing strategy, focused on promoting the academic offerings of the schools, short and online courses, as well as the operational facilities and services that hotel schools can offer, including the possible expansion of such services in an attempt to generate additional sources of third-stream income. It is also recommended that a strong alumni and industry partner network be established and maintained and bigger kitchens built to increase the staff-student ratio at the CUT Hotel School as it is lower than at most of the other local hotel schools. The latter would reduce the high cost implications which invariably threaten sustainability. It is further recommended that the CUT Hotel School carefully understudy the financial management practices of the two hotel schools (E and F) that are doing very well financially.

From the results of this study further research could be conducted on the following topics: determining what the hospitality industry requires in terms of variety of academic offerings, such as the possible need to offer additional courses in, for instance Food Service Management; determining the number of TIUs that the school’s operational facilities can accommodate; determining the reasons and solutions for the relatively high dropout rates of students, especially in the first year; developing a strategy towards improving research outputs; determining the predictors of success to improve progression towards graduation; developing a hotel school marketing strategy; and determining how to develop and maintain an alumni network.

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