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Facilities management unit: improving self-image before its customers

Edoghogho Ogbeifun
Faculty of Engineering and Built Environment, University of Johannesburg, Johannesburg, South Africa
Charles Mbohwa
Department of Quality and Operations Management, University of Johannesburg, Johannesburg, South Africa, and
Jan-Harm C. Pretorius
Faculty of Engineering and Built Environment, University of Johannesburg, Johannesburg, South Africa

Abstract

Purpose – The purpose of this study is to explore the role of effective communication and the use of customer-friendly periodic report as tools for managing cordial relationship between facilities management (FM) operatives and their customers. FM functions require effective management of the relationships between the customers, workplace interface and support facilities, to facilitate the achievement of the objectives of the organisation. This suggests that FM operatives should continuously marry their performance priorities with the customers' priorities and perception; otherwise, the FM operatives may be toiling without objective recognition of service or achieve improved customer satisfaction.

Design/methodology/approach – The case study method of qualitative research was adopted. The data were collected using the combination of in-depth interviews and evaluation of FM's periodic reports from two universities in South Africa.

Findings – The FM units in both universities have a suitable operational system and use a modern computer-aided FM tool. However, the units have not been able to manage relationships with customers, largely because they have not been able to "deliver on promise" and have not learnt to use the soft skills of effective communication. The quality of the periodic reports from the units does not provide sufficient educative information for the end-users; the structure is not stakeholders-friendly.

Originality/value – The paper identifies that though FM units spend considerable time in the development, maintenance and effective running of support facilities, they pay little attention to documentation, reporting and use of the soft skills of effective communication, which are necessary ingredients for improved customer relationships.

Keywords University, Facilities, Customer, Management, Report

Paper type Research paper

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1. Introduction

Although the operatives of facilities management (FM) unit put in their best to see that the facilities and services that support the core activities of their customers are up and running, they pay little attention to documentation, reporting and effective communication. They complain about lack of recognition and appreciation for their hard work and of increasing complaints when any part of the services (no matter how small) is not functioning. In general, the customers are not to be blamed always. The FM operatives have not yet learned the soft skills of effective communication with their customers. There are benefits to using such skills. There are many avenues for effective communication with customers, which include the development of customer-friendly periodic reports and analysis of the content of the reports and detailed facilities analysis of asset in the portfolio of the customer, thus enabling the FM unit to both inform and educate the customers on the state of the facilities in their portfolio (Carder, 1995; Campbell and Finch, 2004; Lavy, 2008). Furthermore, when FM units translate periodic reports into forward-planning schemes and budget proposal, they dispose senior management to allocate sufficient funds for FM operations and refrain from arbitrary reduction when funds are in limited supply. The quality of periodic report can also influence how customers rate FM operations in customer satisfaction survey or performance assessment.

This paper is an abridged report of two separate studies on the operation of FM units in two universities in South Africa. For the sake of simplicity, they will be addressed as Institution 1 and Institution 2. The paper begins with a literature review, following which the research methodology is discussed, and then the findings presented and discussed. It ends with a section on conclusion and recommendation.

2. Literature review

What endears an FM unit to its customers is determined by the quality of interactions, frequency and depth of communication, the reporting structure during capital project execution, closeout formalities, end-users' orientation into the newly developed asset and during operation and maintenance phases, which are usually summarised by the customers' performance assessment exercise. This section will provide a synthesis of key literature related to FM tools for effective communication with customers.

2.1 Project commissioning and handing over

FM services should be a seamless whole encompassing capital development, operation and maintenance. A crucial stage in infrastructure development is when the completed facility is handed over to the customer (client or end-user) through the exercise of project commissioning or handing over. In most cases, when the project is overstretched beyond its scheduled time, this aspect is either neglected or poorly managed. It is not enough to provide volumes of operating, maintenance manuals and as-built drawings to the end-users at the project commissioning ceremonies, without adequate familiarity with the features and fixtures of the developed facilities. "The volume of information can be overwhelming to absorb all" (Kennedy, 2005, p. 52). Therefore, effective commissioning exercise should incorporate both familiarisation with the project features and the training of the relevant operatives on how to use the features in the developed facilities.

The as-built documents (ABD) delivered to the end-user at the handing over ceremony, along with other operational information, should be used by the unit

responsible for operation and maintenance to develop "Facilities Operation Documents" (FOD). FOD is a handy tool for effective facilities operation, useful for training maintenance operatives and in helping to locate essential services control points in case of emergency or repairs (Clayton *et al.*, 1998). According to Song *et al.* (2002), "Designers and contractors who produce the building (as-built) documents often have little awareness of the down-stream uses of the information", because the functions, features and fixtures of the facilities change many times within the life cycle of the built facilities. In specific terms, Clayton *et al.* (1998) outlined that:

> Facilities documentation is a resource for planning repairs, shut-downs and other maintenance and operations activities. Drawings of the facility help personnel to identify cut-offs for distribution lines and equipment that will be affected […] In cases where equipment is replaced, removed, or […] rerouted, facility documentation may act as an input and output of maintenance and operations (Clayton *et al.*, 1998, pp. 6-7).

The FOD database should be developed in an easy-to-read format and accessible for planning and timely decision-making. An authentic and dynamic facilities operation document serves as an in-house tool for the FM manager to manage his day-to-day operations, forward-planning, budgeting, effective communication with customers and for objective management decisions.

2.2 Periodic reports and analysis of facilities history

FM units spend considerable time in the development, operation and maintenance of the facilities that enable the units responsible for the performance of the core functions of the organisation to run smoothly, but pay little attention to documentation, reporting or providing extended information to the customer from the operation history for each facility in its portfolio. Carder (1995) suggests that FM should present periodic reports in a simple format, so that the customers can relate with the state of the facilities in their portfolio and identify possible constraints to the effective performance of the core function of the organisation, and the report should demonstrate prudent financial management. The details and structure of each report should reflect the hierarchy of the recipient; whereas an executive summary is useful for leaders at the strategic level, leaders at the tactical level require more details. The report should be accompanied with appropriate visual representation to enhance understanding and appreciation of the technical report (Chou *et al.*, 2010).

The analysis of facility's operational history is an extension of periodic report through a long period with the objectives of determining the functional state of the whole facility as well as the components. The majority of the operation information about a facility in the portfolio of the FM units is stored in their computer or file (Lavy, 2008), for many years, without objective analysis to determine the functional state of the facility or its components. Periodic analysis of facilities history enables FM units to effectively educate their customers on the state of the facilities in their portfolio. Lavy (2008) demonstrates this by analysing the facility history found in the database for an engineering building of Texas A&M University. The analysis highlighted the negative impacts of the faulty heating ventilation and air conditioning (HVAC) system on the quality and functional state of the building through the computation of the Facilities Condition Index (FCI) and Component Index (CI). The FCI indicates the quality of the whole facility, while the CI clearly shows which component is close to or has exceeded its design life. The information from the analysis enabled Lavy (2008) to develop a 10-year

forward-planning and the financial requirement for three scenarios of FCIs, as shown in Figure 1. The three scenarios reflect the current FCI and proposed improvements on the level of FCI from 20.3 per cent to 15 and 10 per cent, respectively.

Furthermore, detailed facilities assessment can save institutions from making costly mistakes when deciding on the change of use of facility, upgrade, renovation or responding to legislative requirements. Hayes (2006) cites the examples of two universities where detailed facilities assessment guided the decision on change of use:

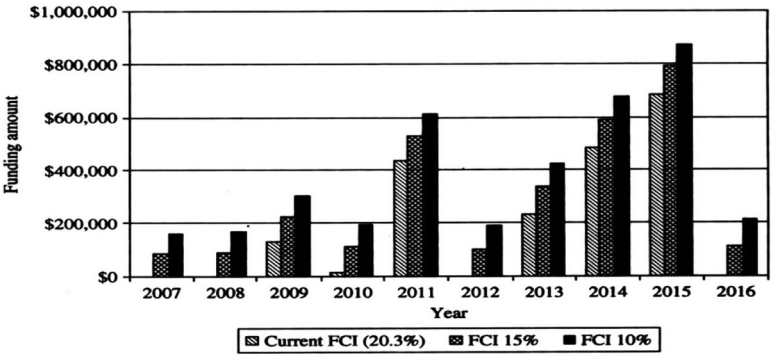
> At a small urban university, officials wanted to add two stories to a historic building. An assessment determined that the existing structure could not support new floors; the work could be done, but it would require significant capital to do so. In another institution […] officials needed to know if a 1960s science building could accommodate a program expansion. An assessment of the facility concluded that the best option was to build a new structure (Hayes, 2006, p. 311).

The detailed analysis of facilities history which is disseminated to the academics and senior management of higher education (HE) institutions is a useful tool for effective communication, facilitates timely decision-making and enhances improved relationships between the customers and FM unit, as well as objective assessment of the performance of FM unit by their customers.

2.3 Performance assessment

FM customers include senior management, the complementary units responsible for the execution of the core functions of the organisation and service providers. Satisfying their interest therefore requires dynamic synthesis balancing of needs (Walters, 1999). Customer satisfaction can be measured through the evaluation of customers' response to key issues in customer satisfaction survey or performance assessment exercise, as well as the analysis of the "the number of compliment and complaints received" (Yeo, 2008, p. 272) from the customers.

In the typical workplace interface, the contribution of the FM unit can be represented in the generic form of "location, buildings and plant, information technology or transport, people and others" (Carder, 1997, p. 84). The states of these generic environments are used as "input" factors in Carder's (1997) graphical demonstration of



Source: After Lavy (2008, p. 312)

Figure 1.
Chart for funding required for three different facilities condition indexes

the relationship between the workplace infrastructure system and the operation of the core business system (Figure 2).

The FM services can be fed into the above model as "inputs" and processed through the FM structure to obtain the "outputs". In the HE institution environment, for example, the "outputs" from the performance of the FM unit serve as "inputs" for the performance of the core functions of the institution through the business process of teaching and research. Furthermore, the quality and functional state of the support facilities (Lateef *et al.*, 2010; Amaratunga and Baldry, 2000; Amaratunga, 2000) determine the quality of graduates and research outputs of the academics weighed against the goals of the institution, and the competitive advantages of the institution within the community of universities (Taylor and Bradock, 2007).

The business interests of a typical HE institution revolve around teaching, learning and research. This tripod guides its investments in appropriate infrastructure, technology and services. The academics execute these core functions within and outside the physical space of the respective campuses (Jamieson *et al.*, 2000; Jamieson, 2003). The contribution and value adding of FM is seen in the interface between functional facilities services and the work processes of the academics in both the physical and virtual space (Kok *et al.*, 2011). Lateef *et al.* (2010, p. 77) lend credence to this fact that adequate and functional complementary support facilities "creates suitable, conducive and adequate environment that can support, stimulate and encourage learning, teaching, innovation and research activities". Learning environment is a major factor in effective teaching and learning, whether in the physical or virtual space, and the facilities available in the learning environment contribute significantly to the success of the knowledge transfer efforts (Uline and Tschannen-Moran, 2008; Vidalakis *et al.*, 2013; Odediran *et al.*, 2015). A suitable learning or school environment highlights the mission of the school, stimulates students' creativity, fosters a sense of belonging and promotes community support for the school (Jarman *et al.*, 2004).

Figure 3 The FM/working environment in business context (simplified)

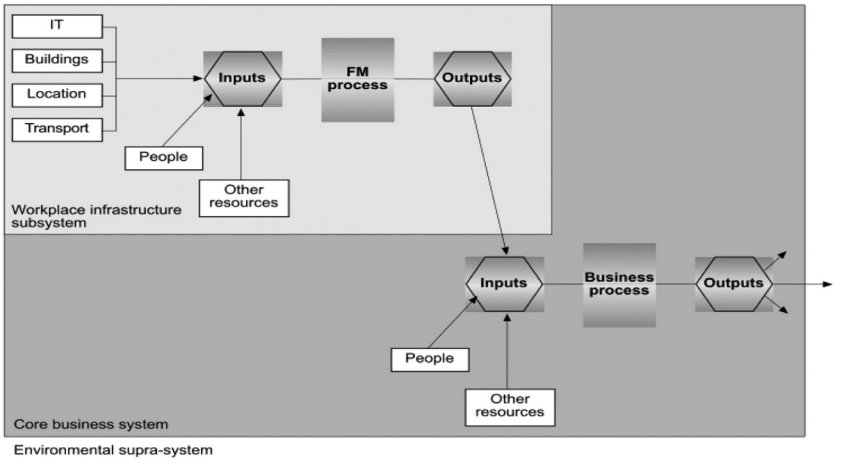


Figure 2.
Graphical representation of workplace interface

Source: After Carder (1997, p. 87)

The literature reviewed saliently challenges FM operators to earn the respect of their customers through the dynamic use of the soft skills of effective communication rather than just performing. Although there are many tools for effective communication, the focus of this paper, therefore, is to demonstrate how the quality of the periodic reports emanating from FM unit serves as an essential tool for effective communication, enabling the FM unit to earn its respect from the customers.

3. The research method

The case study method of qualitative research was adopted after the synthesis of relevant literature on FM operation. The data were collected using a semi-structured questionnaire complemented with interviews and the detailed review of periodic reports emanating from the FM unit of the institutions used as case study. The case study method allows for in-depth and accurate information (Lateef *et al.*, 2010) about a particular situation or phenomenon within its context (Green and Thorogood, 2009) and enables the researcher to relate with the actors directly involved in the subject matter being investigated. The analysis of the periodic reports brings to fore the strengths and weaknesses that the respective FM units need to be cognizant of and improve upon, where necessary.

4. Findings and discussion

In both institutions, periodic reports on capital developments are presented to the respective clients, while the operation and maintenance reports are produced for internal consumptions of the FM units only. However, one of the institutions produces a separate, comprehensive annual report, embracing both capital and operational issues; this report is only available to officials at the strategic level of leadership of the university. The periodic reports from the FM units in both institutions are economical in details, too technical and presented in a formats that are not customer-friendly. There are no explanations for the acronyms used and no analysis of the content of the report to inform and educate the customers.

4.1 Capital development and end-users' orientation

The capital development exercise is executed by the technical division of the FM unit in both universities. They adopt a similar approach in the development process which includes the involvement of end-users from the inception of the project, translation of project briefs into the development of project execution documents and the incorporation of the end-users into the project execution team (known as Technical Execution Team' [TET]). The institutions do not invite tenders for the execution of any capital project until they secure 100 per cent of the project fund. However, the level of customer satisfaction in the various stages of the project development process varies. In general, "the client and end-users attends the site meetings, visits the project site and makes objective contributions through the TET". Nevertheless, "when dealing with design changes, they are not adequately consulted or educated; thus some of the changes undermine the effective performance of the core functions of teaching and research". In some extreme cases, some projects have been placed on hold at the planning phase because the FM unit was not able to manage the scope change requested by the end-user.

In an effort aimed at developing better relationships with the end-users, help them settle into their property with relative ease and facilitating its operation and maintenance, "at the end of each project, a complete set of the 'As-Built Documents' (ABD) is handed over to the representatives of the end-users and the maintenance unit

respectively". To buttress the importance of producing authentic ABD, one of the Directors emphasised that a clause in the letter engaging all consultants read thus:

> The final 10 per cent (ten per cent) of the full fee payable will only become processed for payment on submission of a project completion report and "as built" drawings, acceptable to University authorized representative (Ogbeifun, 2011, p. 85).

These documents are produced in both hard and electronic copies. The active involvement of stakeholders in capital developments follows best practice, where "line function" departments work closely with project personnel from the earliest part of the project to completion phases (Heywood and Smith, 2006). This suggests that representatives of the stakeholders that participated at the planning stage should translate into the execution governance for effective implementation (Pemsel *et al.*, 2010).

Strategic planning of capital development is central to the achievement of the infrastructure requirements in universities for the execution of the core functions of teaching and research. Each project initiated in this realm is subjected to wide consultation and critique of its content and components and evaluated in terms of its present and future worth, fit for purpose and cost effectiveness. It is fairly difficult to have the same team of academia involved with a capital development from the beginning to the end. The changes in personnel (heads of department) introduces a chain of new ideas, in most cases, that have negative impacts on the project, and irrespective of the stage the new entrant met the project. Managing scope or design change is a major challenge to FM operatives in HE institutions. Efforts are made to accommodate some of the new suggestions within the on-going project. However, in some instances, the proposed change is so fundamental that it results in halting the project; as in the case of the proposed development in the science faculty, in Institution 2.

It is normal in capital project developments to expect and entertain changes; the management of such changes communicates the commitment of the service provider (FM) to the realisation of the objectives of the customer (academics). Some engineering management tools that have been tested for effective management of scope and design changes to customer satisfaction, in meeting their present and future needs, include value engineering (VE), flexible design and phase development. VE, as a project management or project control tool, is an innovative thinking methodology that serves as a vehicle for mutual decision-making by applying good group interaction skills (Thiry, 2001; Abidin and Pasquire, 2007). The process enables the group to systematically define common objectives, functionally prioritise what needs to be done and then creatively identify how best to achieve the desired result (Male *et al.*, 2007). A typical VE session allows the synthesis of the information gathered in the "information phase" to be processed using the instruments of functional analysis, creative thinking and evaluation; then, the decisions reached at the end of the exercise will not be seen as "imposed" but as having been achieved through collective decision (Male *et al.*, 2007; Pemsel *et al.*, 2010).

Academic facilities, like hospital projects, are planned for many years into the future; the population is influenced by the demography of the catchment area, the economic situation in the country and prevailing technology, among others (Hansen and Olsson, 2011). Therefore, by adopting the principles of "flexibility" in design process and production, the FM unit strives "to find best design to meet the client's needs in order to support effectiveness, efficiency and user satisfaction" (Hansen and Olsson, 2011, p. 73). Adopting the principle of flexibility in design allows for the development of facilities that are adaptable, convertible

and expandable, with relative ease and minimum disruption, to effectively support the core function of the client any time within the life cycle of the facility (Hansen and Olsson, 2011). Two broad applications of the flexibility concept and phase development are the use of *generic design* concept and application of *horizontal or vertical* phase development. The generic design concept provides guidelines and instructions regarding basic principles for building structure, communication and logistics, standard room categories, infrastructure and architecture, to ensure functional overall facilities that satisfy the present and future needs of the end-users (Hansen and Olsson, 2011). The idea of phase development requires enhancing the foundation and columns in the early phase of the design and construction; this represents an up-front cost, but has a return in flexibility for future expansion that the end-users can harness (Zhao and Tseng, 2003). Secondly, the horizontal or vertical phase development simply suggests that a portion of the overall project can be executed to meet immediate need, while subsequent phases are executed later. This principle was used for the development of the Tuffs University School of Dental Medicine building, Boston, in 1973 (Guma *et al.*, 2009). The initial plan was for a 16-storey-high building, in the 1960s. The structure was designed to the full 16-storey-high capacity and approved, but the first phase of 10 storeys was developed to meet immediate needs; this phase was put to use in 1973. When the need for expansion was obvious and the client had the capacity to execute the expansion:

> Tufts decided to exercise its option to expand the building in 2007 by adding five additional stories (rather than the planned six, due to code changes). This vertical expansion involves an additional 105,000 square feet, bringing the area of the completed 15 story building to about 283,000 square feet on a footprint of 21,000 square feet. One floor will be shell space to be fitted out later (Guma *et al.*, 2009, p. 148).

If FM units will use these engineering and project management tools to manage scope and design changes, it would have been possible for the project of the Science faculty (and indeed, any other project) to be executed and the FM unit will earn the respect of the customer.

4.2 Operational report from Institution 1

The periodic reports emanating from the FM unit of Institution 1 include a weekly report for the management meetings of the campus managers and a monthly report for the Director. A typical weekly/monthly report contains the information about the work requests received within the period under reference, status of execution and the cost incurred. For example, the report for the month of March 2010 shows that the total work requests from the whole university were 2,995 and is contained in a 421-page document. The format of a typical monthly report is as shown in Table I below.

The monthly reports on the status of execution on the work requests are usually produced on the first Monday of the preceding month, i.e. the report for the work requests for the month of March was produced on 4th April 2010. The report is available as a 13-page document. The structure of the current periodic report is difficult for other stakeholders to relate with as a tool for education and effective communication or to effectively measure the performance of the FM unit. An attempt was made, during the research, to develop a more interactive format by implementing the following suggestions:

Building code	Assigned work order	Work description	Date work requested	Service contractor's code	Date work completed	Total cost
127	70792	Remove, investigate and quote on repair of leaking pump. Replace packing with mechanical seal	2010/03/01	PUMDATA	2010/05/10	R5,462.88
127	70794	Repair noisy pump motor fan	2010/03/01	MJL	2010/03/29	R538.65
127	70795	Professional service to HVAC. Supply and install 1 × 24000 BTU York Midwall unit in room GH525	2010/03/01	PERFECTAIR	2010/04/12	R10.180.20
131	70796	Supply and install 1 × 18000 BTU York Midwall unit in room 236	2010/03/01	PERFECTAIR	2010/04/12	R9,234.00
446	70797	Repair/replace broken toilet soap dispenser in room 2B34 urgently	2010/03/01	SUPERCARE	2010/03/18	R0.00

Table I.
Typical structure of monthly report

(1) reduce the entire report into a table format, for ease of comprehension and reduction in the volume of paper;

(2) sort the requests according to specific unit or clusters of facilities, such as school or department or unit level;

(3) reflect the report of the two months preceding the current month's report;

(4) provide visual representation of the reports; and

(5) provide explanatory notes to effectively educate the customers.

Applying Suggestion (1), the information contained in the 421- and 13-page documents was condensed and presented as shown in Table II.

As shown in the above table, the work requests completed on the 4th of April, the date for reporting on work requests received in the month of March, were 813 (27.15 per cent). Furthermore, extrapolating the result to the 30th of April shows that 2,013 (67.21 per cent) of the March requests have been attended to, leaving an outstanding balance of 982 (32.79 per cent). This further buttresses the suggestion that the reports of any current month should include information on the last two preceding months to the month under reference, for objective assessment of the performance of the FM unit.

Suggestions 2, 3 and 4 were experimented by compiling the comprehensive report of the requests lodged with the call centre from a specific unit, the School of Civil and Environmental Engineering for the period of January to March 2010. The eight-page report

was reduced into a table format as shown in Table III. At a glance, Table III provides the essential information contained in the eight-page report. Figure 3 shows the graphical presentation of the status report, while Figure 4 shows the financial commitment.

However, due to some logistic problems, it was not possible to provide explanatory notes to this report. The notes should provide explanation to terminology, such as quotation; reasons for uncompleted works; and emphasis on recurring requests or deferred maintenance and their implications on the component they represent. The notes should also indicate the cost implication of executing the outstanding repairs or alternative suggestions for addressing the problem. Despite this shortcoming, the structure of this report elicited the following comments from the Head of the School of Civil and Environmental Engineering: "The layout is easy to determine the state of maintenance and it is easy to read. It also indicates that the FM Unit is concerned about

2995	March				April				
Day ending	7	14	21	28	4	11	18	25	30
Quantity completed	9	85	286	463	813	1114	1621	1914	2013
% completed	0.30	2.84	9.55	15.46	27.15	37.20	54.12	63.91	67.21

Source: Ogbeifun, 2011, p. 117)

Table II. Typical monthly report

Problem type	January	February	March	Total issued	Total completed	Cost
Electrical	9	5	5	19	18	10,837.80
Plumbing	6	3	3	12	11	15,763.90
Quotation	1	1	2	4	1	136.80
Building		1	1	2	1	695.14
HVAC		1	3	4	3	2,547.90

Table III. Summary of periodic report on work request from School of Civil and Environmental Engineering

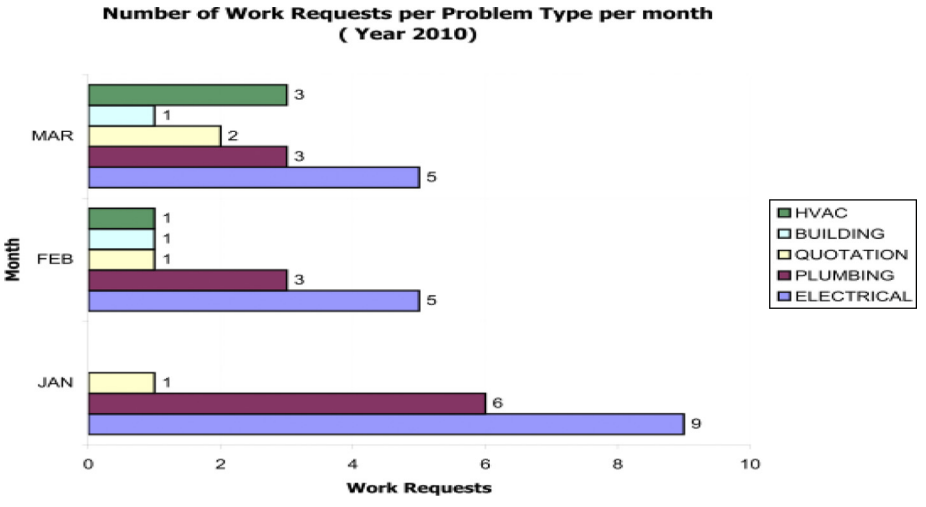


Figure 3. Graphical presentation of the report on the requests from the School of Civil and Environmental Engineering

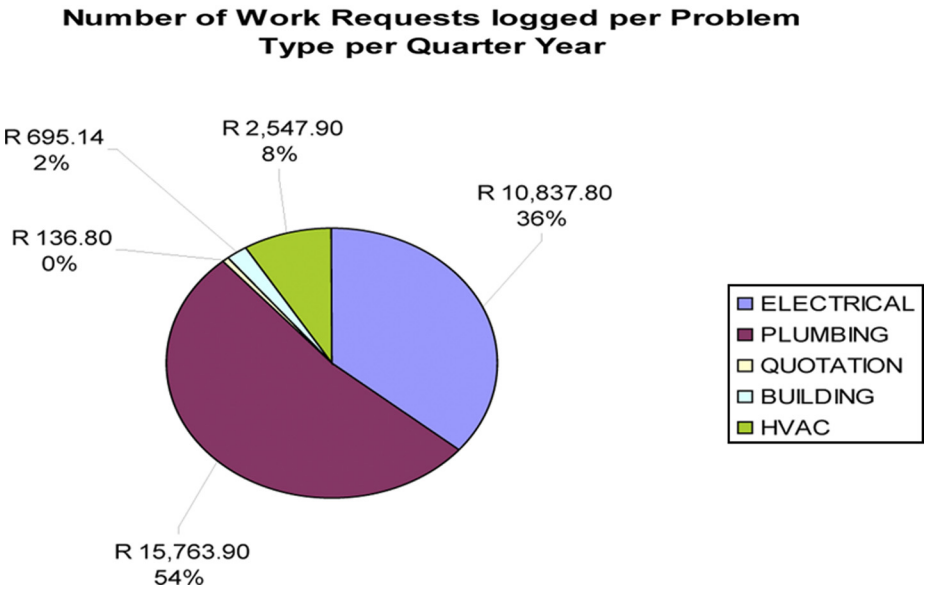


Figure 4.
Financial involvements of the work requests from the School of Civil and Environmental Engineering

maintenance". And the Dean of the faculty added: "It is a good start. I would also like to see an age analyses (30 days, 60 days, etc.) of the addressing of complaints or requests".

If this format is adopted, similar reports can be prepared for the schools in each faculty of the university, but only the executive summary and graphs may be forwarded to the Dean of the Faculty and the university administration for information and necessary management decisions.

4.3 Periodic reports from Institution 2

The periodic reports from this institution include annual and monthly reports on general operations. The annual reports are too technical, economical with the details and easily understood by those who prepared it and somehow by those at the strategic level of leadership, because the reports are presented and explained to them. Otherwise, the reports are not very helpful in educating or communicating with the leaders at the tactical level. For example, in the annual report for 2012, one of the campus director reports:

- A large amount of time was spent on day-to-day maintenance issues, which is indicative of ageing infrastructure. Of the R3.7m spent on maintenance, the larger portion was spent on plumbing and electrical reticulation breaking down.
- Various projects were identified and R12.2m was spent on reviving/replacing ageing infrastructure. (OD's Annual Report, 2012, p. 3)

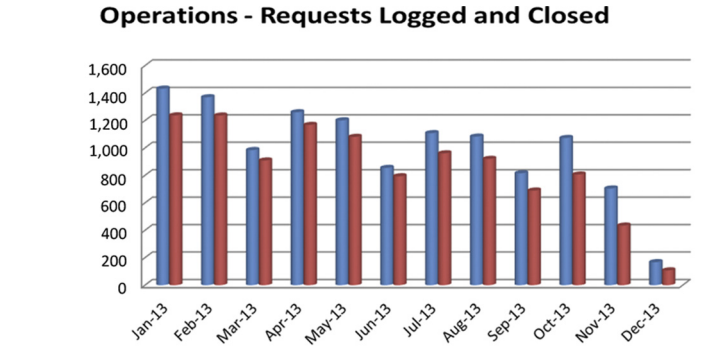
The fact that the above amounts were spent on legitimate projects is not in doubt, but due to poor reporting, the FM unit is not communicating its operation effectively to the understanding and appreciation of its customers.

The summary of the monthly report provides information on the quantity of requests lodged with the unit, the quantity resolved and outstanding volume. Figure 5 below presents the score card of the unit, from the four campuses of the university, in the year 2013.

The unit provided information on the volume of unresolved requests; an indication that these outstanding issues are kept in perspective. However, the report is silent on what the unit is doing with these outstanding requests. Figure 6 shows the year-to-date statistics of outstanding work requests.

Furthermore, the unit also produces the periodic report for each campus. As shown in Table IV below, the report provides generic information of what happened in the campus without specifics or cost incurred.

During the course of this research, the majority of the heads of department complained that they do not receive progress reports from the FM unit on the status of execution of their requests. However, if the generic periodic reports were sent to them,



	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
No of Requests	1,432	1,369	984	1,260	1,201	854	1,107	1,082	815	1,072	704	167
Closed	1,237	1,236	908	1,167	1,080	793	960	920	689	806	434	107

Source: CTS Annual Report (2013, p. 14)

Figure 5.
Summary of performance on logged requests for the year 2013

Source: CTS Annual Report (2013, p. 14)

Figure 6.
Summary of outstanding work requests

Date	No of requests	Closed	Open	Unrated	Poor	Acceptable	Excellent	SLPC
April-13	170	169	1	1	0	152	17	2.66
May-13	137	136	1	1	1	99	36	3.16
June-13	127	121	6	4	0	71	50	3.34
July-13	127	123	4	3	1	24	98	4.32
August-13	134	128	6	5	1	23	104	4.38
September-13	93	93	0	0	3	14	76	3.29
October-13	132	109	23	2	0	12	97	4.16
November-13	100	75	25	0	0	7	68	4.57
December-13	12	10	2	0	0	2	8	3.83
January-14	129	76	53	4	0	6	70	3.93
February-14	116	68	48	2	0	1	67	4.48
March-14	111	79	32	4	0	4	75	4.35
April-14	102	68	34	1	0	3	65	4.32

Table IV.
Year-to-date report for one of the four campuses

they cannot identify the component of the report that reflects the situation in their department.

FM operatives should bear in mind that customer satisfaction is not limited to "technical performance" but also includes "effective communication and management of expectations" (Campbell and Finch, 2004, p. 178). One of the tools of effective communication is detailed and customer-friendly periodic reports (Carder, 1995; Chou *et al.*, 2010).

4.4 Performance assessment

Performance assessment is the graphical representation of the level of customer satisfaction with the efforts of the service provider and the service provider's demonstration of its efforts in meeting the needs of the customer. If FM operatives are concerned about improving their image before the customer, the unit should conduct regular customer satisfaction survey or performance assessment, varying the content of the questions from time to time with the objective of capturing the customers' concerns over a wide range of services provided by the FM unit. This section reports on the customers' assessment of the quality of service provided by the FM units in capital development, operation and maintenance.

4.4.1 Capital development. A component of the research was to measure customer satisfaction; the datum of 2.5 was set as the level of acceptable customer satisfaction. The FM unit in Institution 1 (Figure 7 below) appears moderate in rating its performance, noting that the unit requires improvements in the area of effective consultations with project stakeholders, its project management style and reporting structure. However, the academics expressed their satisfaction that the FM unit is able to deliver projects within budget, but in other areas where the quality of the relationship between service providers and customer is tested, the academics have rated the performance of the FM unit below acceptable average.

As shown in Figure 8 above, though the FM unit prides itself as performing above average (scoring above 2.5 in all areas examined), the academia, which is at the receiving end, did not show complementing enthusiasm. All the ratings of the academia are below average, especially in the areas of "end-users involvements during project execution" and projects that are not "delivered on schedule".

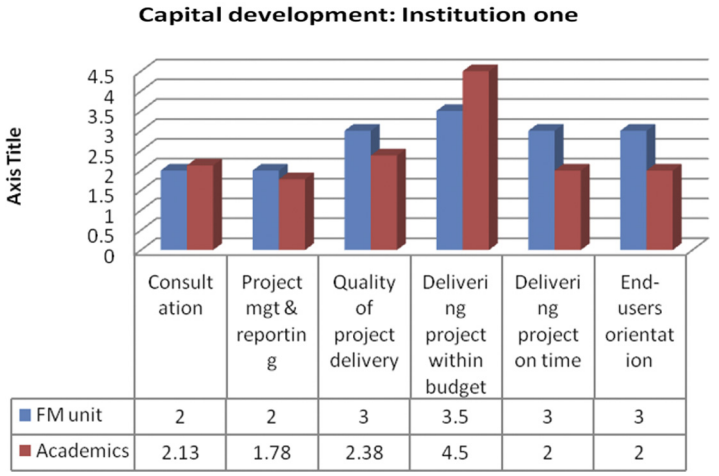


Figure 7.
FM versus academics rating of capital development

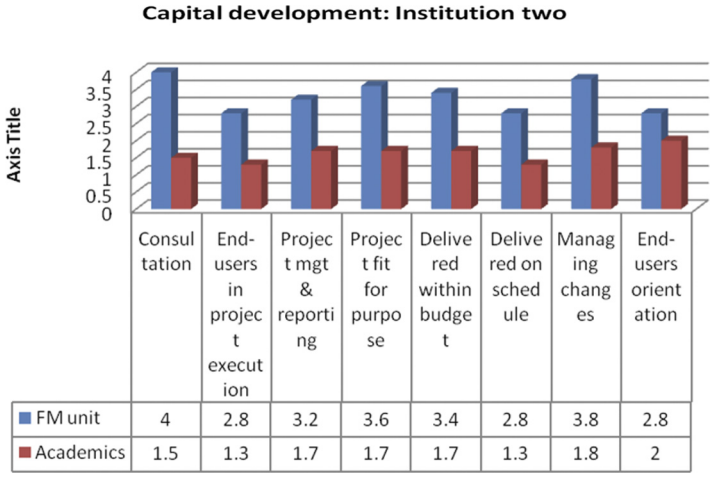


Figure 8.
FM versus academics rating of capital development

4.4.2 Operation and maintenance. The academics in Institution 1 showed marginal level of satisfaction with the allocation of space for teaching and research (Figure 9). They are not satisfied with the level of consultation, the functional state of the facilities within the allocated space for teaching and research and the response rate of FM operatives when the academics lodge requests deserving attention. However, the FM unit seems to be satisfied that it is doing its level best.

The situation in Institution 2 is somewhat different from that in Institution 1. Again, the FM unit shows that it is doing its best in all the items measured, except in the allocation of space for teaching and research. The academics seem satisfied with the level of consultation, the functional state of the facilities within the space for teaching and research as well as the quality of *services* rendered by the FM operatives, when eventually they show up to address the issues raised in the

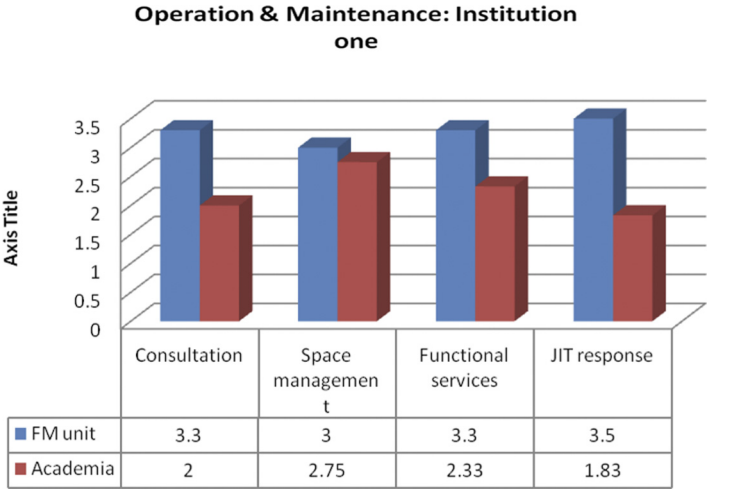


Figure 9.
Level of satisfaction in operation and maintenance services – Institution 1

requests lodged with them. However, they are not satisfied with the rate of response and the length of down time; these have negative reflection on their productivity. In this institution, the FM unit has the goal of making contact with the customer within 48 h of lodging a request, to examine the nature of the request, resolve it where possible or set in motion the necessary modalities of resolving the problem. In practice, FM operatives may visit the customer within the stipulated 48 h, but it takes much longer time to resolve the issues. Sometimes they forget until the customer places repeated calls or raises another request (Figure 10).

Furthermore, in this institution, the FM unit has created a forum known as "Campus Operations Forum" (COF), where they hold periodic meetings with all stakeholders in

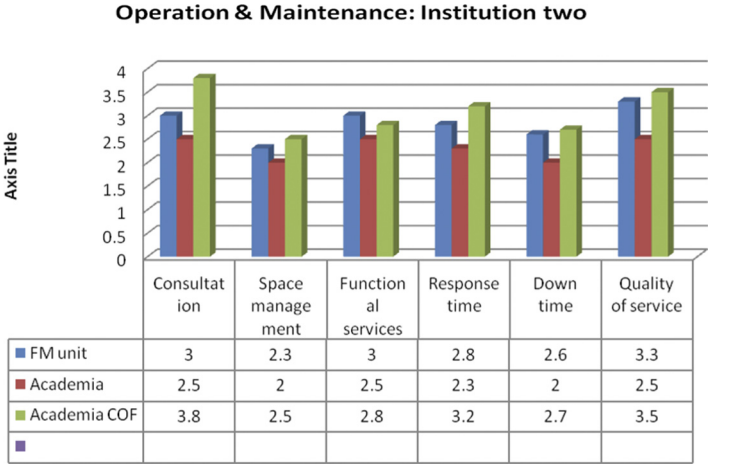


Figure 10.
Level of satisfaction in operation and maintenance services – Institution 2

each campus to discuss and report on issues related to FM services. Unfortunately, less than 10 per cent of academics (heads of department) attend this meeting. As shown in the above exercise, the ratings of the academics that attend the periodic meetings, COF, are higher than the ratings of those that do not attend and that of FM operatives, except in the area of the functional level of services within teaching and research facilities. This presupposes, therefore, that the combination of effective communication and close interaction can foster better understanding and objective assessment of the performance of the FM unit by the academics.

The standard, quality, aesthetics and functional state of the physical facilities and the environment within and around a university contribute to its being attractive to prospective students and staff (Lateef *et al.*, 2010), and affects the quality of its teaching and research, which are the fundamental considerations in the discussion about "excellence in a university" (Taylor and Bradock, 2007, p. 246). The comprehensive and progressive assessment of facilities "provides valuable information about the age and condition of campus infrastructure, identifies the greatest facility needs" (Kennedy, 2005, p. 52); identifies the maintenance gap, backlog of maintenance and renovation (Kennedy, 2008); and "provides holistic understanding of the existing conditions of all buildings and grounds so that a school can plan and budget for campus growth and upgrades" (Hayes, 2006, p. 311).

5. Conclusion and recommendations

Though the FM unit put in lot of efforts in the development, operation and maintenance of appropriate support facilities for the performance of the core functions of teaching and research, such efforts do not show positive reflections during periodic assessment of the level of customer satisfaction. This, in part, can be corrected through the use of the soft skills of effective communication, development of functional periodic reports, providing continuous stream of information through asset analysis and functional budget. Effective communication in the form of periodic reports, comprehensive asset analysis and the development of objective forward-planning with appropriate budgetary allocation enhances the relationship between FM operators and their customers as well as influences the assessment of their performance (Carder, 1995; Hayes, 2006; Campbell and Finch, 2004; Lavy 2008). The FM unit may be performing its level best, within available resources, but if the customers are not involved, informed or educated adequately, they will not be able to appreciate FM's performance and constraints.

The customers' perception of the FM unit, obtained from customer satisfaction survey, will change as the FM unit dynamically adapts the feedback information from the performance assessment to develop performance improvement strategies and then a performance management system (Amaratunga and Baldry, 2002). This essential feedback system assists both the customer and FM to refine the process of continuous improvement in performance (Cohen *et al.*, 2001). The effective use of this forum will bridge the existing gaps and improve on customer satisfaction. The FM unit will earn the respect of its customer when the unit aligns its performance priorities along with the customers' perception and priorities (Hinks and McNay, 1999).

5.1 Recommendation for further research

The result from these two institutions may not be sufficient to draw general conclusions; it is recommended that further research should be carried out to include many more HE institutions over a larger geographical spread.

Periodic reports used were Operations annual report 2012 and Operations, Central Technical Services, Annual report 2013.

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About the authors

Edoghogho Ogbeifun is currently a doctorate student in the Postgraduate School of Engineering Management, Faculty of Engineering and Built Environment (FEBE), University of Johannesburg (UJ). He had his earlier education in Nigeria, obtaining the Higher National Diploma (Structural Engineering) in 1982, postgraduate diploma in civil engineering in 1990 and MSc in project and construction management from the University of the Witwatersrand, South Africa, in 2011. His work experience spans across the design, construction supervision and maintenance of infrastructure in the built environment. He is a specialist structural engineer, corporate member of the Nigerian Institution of Structural Engineers (NIstructE), registered civil engineer with the Council for the Regulation of Engineering in Nigeria (COREN) and corporate member of the South African Facilities Management Association (SAFMA). He has developed several peer-reviewed academic papers presented in international conferences and journal, as well as facilitated in several capacity-building workshops in Nigeria and South Africa. His research interests are facilities management, project control and management, structural stability and building pathology, safety within built facilities and municipal solid waste management. Edoghogho Ogbeifun is the corresponding author and can be contacted at: edogbe2002@yahoo.com

Professor Charles Mbohwa is the Vice-Dean Postgraduate Studies, Research and Innovation at University of Johannesburg's (UJ) Faculty of Engineering and the Built Environment (FEBE). As an established researcher and professor in the field of sustainability engineering and energy, his specialisations include sustainable engineering, energy systems, life cycle assessment and bio-energy/fuel feasibility and sustainability with general research interests in renewable energies and sustainability issues. Mbohwa has presented at numerous conferences and published more than 150 papers in peer-reviewed journals and conferences, six book chapters and one book. He holds a BSc Honours in Mechanical Engineering from the University of Zimbabwe in 1986 and master's degree in Operations Management and Manufacturing Systems from the University of Nottingham, and completed his doctoral studies at Tokyo Metropolitan Institute of Technology in Japan. Mbohwa was a Fulbright Scholar visiting the Supply Chain and Logistics Institute at the School of Industrial and Systems Engineering, Georgia Institute of Technology. He worked for the National Railway of Zimbabwe as a mechanical engineer, a registered mechanical engineer with the Engineering Council of Zimbabwe and fellow of the Zimbabwean Institution of Engineers. He has been a collaborator to the United Nations Environment Programme, and Visiting Exchange Professor at Universidade Tecnológica Federal do Paraná. He has also visited many countries on research and training engagements, including Austria, Australia, Brazil,

France, Germany, Ghana, Japan, Kenya, Malawi, Mauritius, Namibia, Nigeria, Sweden, Tanzania, the Netherlands, the USA, Uganda and the UK.

Professor Jan-Harm C. Pretorius obtained his BSc Hons (Electrotechnics) (1980), MIng (1982) and DIng (1997) degrees in Electrical and Electronic Engineering at the Rand Afrikaans University and an MSc (Pulse Power and Laser Physics) at the University of St Andrews in Scotland (1989), the latter *cum laude*. He is a trained Baldrige (USA) and South African Excellence Foundation (SAEF) assessor. He worked at the South African Atomic Energy Corporation (AEC) as a Senior Consulting Engineer for 15 years. He also worked as the Technology Manager at the Satellite Applications Centre (SAC) of the Council for Scientific and Industrial Research (CSIR). He is currently a Professor and Head of School: Post Graduate School of Engineering Management in the Faculty of Engineering and the Built Environment. He is the author and co-author of more than 120 research papers and supervised 21 doctoral and more than 120 master's students. He is a registered professional engineer, professional Measurement and Verification (M&V) practitioner, senior member of the Institute of Electrical and Electronic Engineering (IEEE) and a fellow of the South African Institute of Electrical Engineers (SAIEE).