# Facility Management

| | |
|---|---|
| Maintenance | Operation |

Kjernevirksomhet

| | |
|---|---|
| Administration | Development |

Services

Source: (Multiconsult, 2012)

# Mapping of Facility Management maturity profiles in Norwegian Universitties and University colleges

# Kartlegging av Fasilitetstyrings Modenhetsprofiler i Norske Universiteter og Høgskoler

## Bachelor in Facility Management

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## Høgskolen i Oslo og Akershus
## Oslo and Akershus University College of Applied Sciences

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Finally, I would also like to thank all the FM responsibles in the Universities and the Universities colleges who accepted to participate in this study. And a special thanks to all the FM students and their moral support to me and each others.

# ABSTRACT

**Purpose-** The purpose of this research is to study and analyze FM maturity profiles levels in the Norwegian Universities and University colleges and to identify the gaps and pitfalls in these organizations using the FM maturity matrix.

**Design/methodology-** This thesis is based on case study method with combinations of a qualitative and quantitative research. This includes background research of organizational structures of the publics institutions that agreed to participate in answering the FM maturity matrix assessment and the interviews. The data collected was conceptualized, analyzed and compared with the FM maturity matrix levels and the theoretical literature review of the important FM key performance indicators.

**Findings**- the study shows the presence of FM strategies in Universities and University colleges .Similarly, most of the FM reponsibles selected in this study are aware of that the organisational development that integrates proprety and FM services, contributes to the demonstration of the value of FM to the core business.  Though there is a lack of FM standards and policies understanding and implementation. The FM organization may also not be fully integrated and communicated with the core business and the property owners.

**Practical implications/limitations-** The exact FM organizational structure in the institutions is difficult to map, because there are many Property management responsibles and reaching the right property managers was a challenge. Only 11 (44%) of 25 (100) have agreed to answer the assessment wich I think it's a representable data. The FM maturity matrix used in this study includes sub-headings that can be misinterpreted and may not fit the Norwegian FM organization and work environment. However further research using an advanced and objective FM maturity matrix can be useful to identify the gaps and the current and the expected situation of FM in organizations. Furthermore, better solutions to add values to the core business and the properties.

**Key words-**  Facility Management (PM), Property Management (PM), Facility Services (FS), Performance management (PM), Facility Management strategy (FM strategy), FM maturity matrix.
**Paper type -** Bachelor thesis.

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## 1. <u>INTRODUCTION</u>

Facility management (FM) is a profession that involves multiple disciplines and routines to ensure the functionality of the building and the built environment, by integrating people, place, processes and technology (Atkin &Brooks, 2009, p.4). FM provides supportive services to the core businesses in the companies, such as infrastructure maintenance, improvement and adaptation, building operations and equipment repair, etc. FM can deliver significant benefits to the core business if FM and property managers can create and implement strategies that give real value to the building and the business.

At the same time, the lack of buildings technical functionality and standard will affect both environmental and social issues, and value aspects. Because buildings that are poorly managed increase maintenance and upgrading needs and cost. (Bjørberg, Larssen, Temeljotov, Boge, 2016).

To improve the buildings value and develop property management industry in Norway, a project called "OSCAR-value for owners and users" was initiated by Multiconsult AS, which is one of the leading engineering companies in planning and consulting. The company`s main business areas are property, industry, energy, environment and natural resources (Multiconsult, 2015). The OSCAR-value project`s aim is to develop knowledge, methods and analytical tools that enable optimization of the building design and contribute to creating values for the building's owners and users through its lifetime.(Oscarvalue, 2016). Amount the analytical tools that can help organizations achieve Excellency, is to identify the position of FM, the gaps and what kind of data and strategies these organizations need to implement to reach property management best practice and effectiveness.

In order to measure the maturity and performance of FM in organizations,NTNU students : Ole Einar Gulbrandsen ,Tor Helge Reme ,Ole Fredrik Andre Sand Andersen ,Lisa Hårstad, have together with Multiconsult AS,  made a Norwegian version of Josef Czerny`s european high level FM maturity profile matrix  regarding strategy, standards and policies, financial planning, service provision, performance management and organizational maturity( Larssen, 2011). Czerny who is a Hungarian Facility management expert, and the chairman of the FM Hungarian society (FM-world, 2010), Believes that this assessment can be utilized to Facility managers' improvement, and Benchmarking processes in FM organizations (Larssen, 2011).

### 1.1 The benefits of the FM maturity matrix

<u>The maturity profiles allows to:</u>

- Identify the key requirements for a successful FM organization.
- Assess the present position of an FM organization against the best practice
- Compare FM organizations with the help of a maturity profile.
- Identifies best practices in FM at the strategic level in different industries from the supply and the demand sides
- Compares existing practices in FM at the strategic level in different industries
- Identifies gaps in different industries from the demand and the supply sides
- Delivers data for developing strategic plan based on the findings
- FM organization can follow, document and evaluate the changes in the FM organization, to get to the pest practice processes. (Larssen, 2011).

The FM maturity matrix mentioned above, was applied in four companies in a project task by the named NTNU students in order to find out the maturity levels of FM in Norwegian organizations. The research results main conclusions show that FM is unknown in the Norwegian organizations, because people that were interviewed were not FM-oriented. And the research questions were ignored or considered as irrelevant because of the lack of FM-knowledge (Multiconsult, 2012). My intension with this background is to get more information and to examine more closely FM maturity and performance in the Norwegian organizations.

## 2. BCKGROUND OF THE RESEARCH

Facility management is rapidly changing due to the changing business environment that represents new demands of competences and skills to meet the core business needs. Forces such as increased globalisation, rapid technological innovation and the customisation of products and services are considered major influences on world markets and the nature of business enterprises (Booty, 2009, p. xxiii).the business of FM will also be more flexible and more streamlined as before and facility managers will need communication and new variety of skills (Booty, 2009, p. xxiii).

The purpose of this research is a request from Oscar-value which is represented by the professor Svein Bjøerberg and our FM professor Alenka Temeljotov Salaj to study and analyze FM maturity models in Norwegian Universities and University colleges.

The present study adopt FM industry performance effectiveness for the demand and the supply sides in organizations, and aimed to map and examine the FM maturity levels in publics institutions in Norway. There are two questions addressed:
- What are the present and expected FM maturity profiles levels in Universities and University colleges using the FM assessment?
- What are the FM gaps and pitfalls in these organizations using the FM assessment model?

The research will advance and progress in the area of the identification and comparison of FM maturity profiles levels (present and expected situation) in public Universities and University colleges by using the FM maturity matrix. This will shed light on what kind competences FM employees need, in order to manage facilities effectively.

## 3. THEORITICAL BAKGROUND

FM concept in Norway is relatively new, which means it is important to review relevant theories of FM approaches, strategy and functions for FM key performance indicators that support he FM maturity matrix. This will provide a solid foundation for the thesis.

### 3.1 Facility management

NS-EN15221-1 (2007) defined FM as "integration of processes within an organization to maintain and develop the agreed services which support and improve the effectiveness of its primary activities". According to Sæboe and Blakstad (2009, p.4,30.42) FM is generally used to coordinate assets and services, using management skills , service level agreements (SLA) and Benchmarking to handle the changes in the organization`s environment.
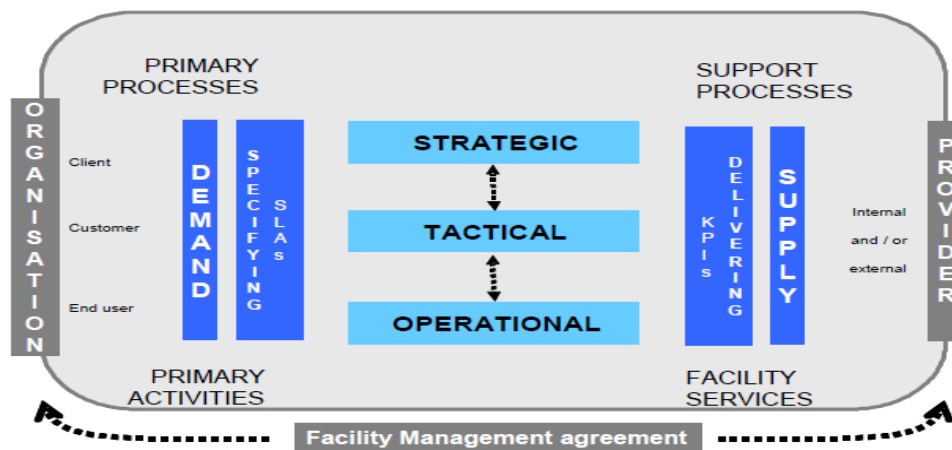
**Figure A.1-Facility management model. (NS-EN 1522-1, p.7)**

### 3.2 FM strategies

In order to discuss whether Universities and University colleges have an FM strategy, I took a close look at the theoretical FM strategies. Atkin and Brooks (2009, p.14-15) mentioned that robust FM strategies have to be developed in order to manage facilities efficiently. The strategic analysis should focus on the organizational objectives, need and policies, in addition to the review of resources, processes and physical assets and the organization space utilization, to deliver value to the core business and reduce risks. (Atkin&Brokks, 2009, p.15).It's important to involve stakeholders, building owners and others who has legitimate interest in the business in the FM strategy solutions and implementation, by communication clearly. This will make the strategy workable and effective. (Atkin &Brooks, 2009, p.22). Strategies in the public sectors are complex, depending on limited budgets, the organizations structure and flexibility, and are managed by politics and rules (Roos, Von Grogh, Roos&Boldt-Christmas, 2014, p.61). A good FM strategy in these organizations should focus on their human recourses' weakness and strength, by using a SWOT-analyze method to identify the organizations culture and values, the personnel kills and competencies and how to improve it (Roos et al, 2014, p.169). FM strategy plans and solutions should always be presented in a written document (Sæboe & Blakstad, 2009, p.14).

### 3.3 Standards and policies

FM standards and policies are documents that can voluntarily be used to formalize procedures, rules, or as a guideline for managing Facility Services and strategies ( Standards, 2015).Global competitiveness and quality of life have initiated  FM stakeholders to make standards that  provide requirements to make goods and services, regulate how testing, certification and accreditation to be implemented. The standards are also a solution proposal and contribute to the development of appropriate and safe service processes. They follow the national laws and regulations and can be used to benchmark skills, knowledge and competences for those working at all levels in the FM profession (standards, 2015). (Appendix 1 is a list of the recent Norwegian FM standards).

### 3.4 Financial management in FM

Booty (20011, p.189) means that financial strategy and management support the achievement of the organization's goals. Using planning and control mechanisms for effective use of available finance ensure the required level of service quality (Booty, 20011, s.189).

FM costs are significant and are associated with the provision of the building support services, staff and business support. In order to achieve a budgetary control, booty (2011, 192-196) means that its necessary to coordinate and integrate the FM financial processes in the organization`s other departments and the users and contractors should also be aware of the FM costs. This will make Facility managers financial plans clear and usable. (Booty, 2011, p.196)

### 3.5 Management of Facility services

According to Atkin and brooks (2009, p.171-172) the best way to manage the procurement of the facility management is the establishment of one point of responsibility where the contractor is providing all the services (Total facility management), in the meanwhile it is still necessary to choose procedures that will create more values in the organization and meet user's needs. The FM organization needs to act in a smart strategic way in order to deliver customer satisfaction, this can be done by understanding the organizations culture, its customer and needs, specifying and delivering in-house service requirements .When there is a need for outsourcing, facility managers should understand how the FM market is developing and benchmarking the performance of the services and other best practices to reduce costs and create value (Atkin &Brooks, 2009, p.5)

### 3.6 How can FM fits in organizations?

FM organization should identify and differentiate between its core and non-core business activities, this is important to ensure that FM activities are focusing on what is needed most. This will develop the working and the core business environment (Atkin &Brooks, 2009, p.15).
 Critical reviews should be considered to make the FM fit in the organization; among these are the examination of policies of standards, performance standards, health and safety requirements and FM services quality. Measuring financial processes and procedures, auditing the FM strategy and the service delivery (customer relations, quality, costs, etc.), will demonstrate the value of the business and offer insights into what and how can be improved (Atkin &Brooks, 2009, p.17).

### 3.7 Performance management and the management information system

Infrastructure management planning is a new concept in FM and Booty (2009, p. 286) defined it as intelligent buildings. This concept supply more efficiency by organizing the buildings structure, system, services and management and its proven to be productive and cost-effective (Booty, 2011, p.286). Document management systems like databases and helpdesks are technologies that enable finding buildings and activities information in order to measure performances and satisfy the user and the customer demands (Booty, 2011,  p.295-296).
FM professionals are also responsible for  health, safety and environment (HSE) management and should integrate sustainability in FM by choosing safe and environmentally friendly strategies and processes (CSR) .This practice will increase the satisfactory of  the employees working conditions and to reduce pollution impacts on people, the buildings and the environment (Atkin &Brooks, 2009, p.120-131).Furthermore , performance management should include sustainable Facility services routines that conserve water,energy,materials and improve the outdoor and indoor envirement quality.(Cotts,Roper, Payant, 2010, p.175-176).

### 3.8 Personnel development

There are many FM responsibles and personnel that are not educated as FM managers. They are likely to have real estate or other education background or career, which means that these employees need to Develop FM competences and personnel skills to meet the organization needs (Atkins Brooks, 2009, p.243). The organization should be committed to engage their FM personnel in Education and training programs to help the FM strategy reaches its goals and add value to the organization .(Atkins &Brooks, 2009, p.249). The workplace productivity can also achieved by good communication, teamwork for problem solving, engagement and trust (Atkins & Brooks, 2009, p.135).

## 4. <u>METHODOLOGY</u>

The thesis is based on multiple case study research (Punch, 2014, p120-125) this involves the combination of a qualitative literature review of the background of  the Norwegian Universities and University colleges, Interviews with these institutions Property managers  and a quantitative data sampling using the FM maturity matrix. Case studies research is a good method to apply here; because i will collect data i know a little about, it provides me flexibility. (Punch, 2014, p.-119-131) , this will help me studying and developing as full understanding of FM maturity levels data provided  from these institutions as possible. And analyzing the cases I depth by comparing the data provided with the theoretical FM competences.

### 4.1 The FM maturity matrix

The assessment purpose is to map and measure facility manager's performance in the modern world of business, and it used for research purposes only. The participants in the questionnaire are invited first to provide company and contact data, type of the industry, FM data (managed and rented areas) and data about the FM organizational structure. The second part of the assessment is divided into 7 profiles (strategy, standards and policies, financial planning, service provision, organization fit-for purpose, performance management and personnel development). Each of these profiles includes sub-headings that are divided into 5 maturity levels of competences (Multiconsult, 2012) and they are as illustrated below:

| levels | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **Level quality** | Basics | qualified | Qualified+ | Qualified++ | excellence |

However I think many questions in this assessment can be misinterpreted and may not fit the Norwegian FM principals and conditions. (The FM assessment is attached as appendix nr 1).

### 4.2 The informants

All the University and University colleges in Norway, which are 25 (100%), have been contacted by e-mail and phone (appendix nr 2). Reaching the right property managers was a challenge, although Only 11 (44%) of them have agreed to answer the assessment, and provided additional information about their institutions and how they manage the properties. To make answering the assessment easier, I did reformulate and translated most of the questions to the informants i interviewed through the phone. But not all of the 11

property managers completed the whole assessment and the interview. Most of the informants and their institutions want to remain anonymous. Based on this, the results were anonymized and the institutions were marked with numbers.

| Universities /University Colleges 11 of 25 institutions / 44% of 100 % | Answered Czerny assessment |
|---|---|
| Institution nr 1 | X (phone interview) |
| institution nr 2 | X (phone interview) |
| Institution nr 3 | X (e-mail ) |
| Institution nr 4 | X (phone interview) |
| Institution nr 5 | X(phone interview) |
| Institution nr 6 | X (Phone interview) |
| Institution nr 7 | X (phone interview) |
| Institution nr 8 | X (e-mail) |
| Institution nr 9 | X (phone interview) |
| Institution nr 10 | X(phone interview) |
| Institution nr 11 | X (e-mail) |

Table nr 1. Overview of the institutions and how they answered the FM maturity matrix.

### 4.3 Qualitative method

The qualitative method in multiple case studies research is complex because there are many design methods and approaches to data analysis where it`s important to ask, watch and interpret words expressions , which make the research multidimensional(Punch, 2014, p.117-119). To contrast, analyze and compare the background information of the Universities and the University colleges' facilities, I collected both data from the institutions websites and from the interview with the informants that answered the FM questionnaire. There is a danger of empathetic understanding and wrong perception of the captured data, that is why it`s important to choose the right design in order to get relevant data (Punch, 2014, p.119).To do that i used the same questionnaire to ask the informants unstructured questions (Punch, 2014, p.147) that are relevant to the FM maturity profiles and to get trust and access to more details (Punch, 2014, p.147). The process of colleting the quantitative data using instructed interview was conducted by phone. The qualitative data analyses in this research is inductive (Punch, 2014, p.170), which means that the institutions organizational structure will be analyzed in order to frame a hypothetical explanation about the situation of FM maturity level in these organizations.

### 4.4 Quantitative method

This type of research is based on the relationship between variables and is very common to use an experimental design to control and compare variables (Punch. 2014, p.209).The reasoning helps test hypothesis and we can generalize if the phenomenon occurs often while analyzing the data. However they are limits to whether it`s possible to investigate experimental questions, this can make the collected data sometimes superficial (Punch, 2009, p.125-p213).
 I choose a quantitative data collection using Czerny `s assessment because the questionnaire represent good knowledge about FM maturity levels in every profile. Variables are categorical (Punch, 2014, p.228)  in this method and are represented  by 5 levels ranging from 1 to 5 in every profile for present and expected

situation (1- strategy,2-standards and policies 3-planning and budgeting, 4-service provision,5-organisation fit-for purpose,6-PM and MIS, 7-Personnel development) . Statistical package for social science (SPSS statistics) (Punch, 2014, p.199) is used in this research to analyze the mean, ranks, variations, and standard deviations of all the institutions maturity profiles levels results provided from the informants and the frequencies of these categorical variables. Because the variable are categorical and ordinals, the statistical indicators will be estimated in this order (1-2 = level 2.2-3= level3, 3-4= level 4, 4-5=5level 5). I also used Pearson's correlation method (Punch, 2014, p.216) to analyze the relationship between present and expected situation of all the maturity profiles levels results in the institutions and in every institution. The main goal is to analyze tendencies using the descriptive statistical results and correlation results.

### 4.5 Reliability and validity

 Reliability is important in measuring variables and consistencies (Punch, 2014, p.237). To make sure that the information provided is reliable, i have done an online research to locate FM divisions and the names of the workers in these institutions. I also called several employees in these divisions to get the right FM responsibles. Thus there is always question about whether the collected data is reliable or is it affected by the Halo effect (Nisbett, Richard, Wilson, Timothy, 1977) which means the informants can provide false data due to the fact that the interviewer is a student from a known establishment or other circumstances. Validity concept means whether the measuring instrument measures what we think its measure (Punch, 2014, p.239). The assessment I used in this research is an approved FM European document and it is measuring  the levels of FM maturity profiles in organizations based on Best practice ,  FM theories and experience.(Larssen, 2011).The informants that have answered the questionnaire, have also provided their names and emails and many want to remain anonymous.

### 5.   RESULTS/CASE STUDIES

### 5.1Institutions background, their FM organizational structure and interview results

Because of the limited space that is allowed in this thesis and the large amount of data results. I have only introduced the most relevant background data of the institutions; this includes their overview, their FM organisational structure background, the services they provide and the interviews results (**Nb.**  Not all the functions in the organisations models are illustrated, I focused only on the FM position).   SPSS and correlation results tables are attached as appendix nr4. The relevant statistical results and signifiquant correlations for each profile and sub-headings are extracted and decribed.

### 5.2 Statsbygg

Almost all the Universities and the University colleges are owned by Statsbygg. The establishment is a public sector administration company, responsible to the Ministry of Local Government and Modernization (KMD). Statsbygg provides functional premises to public sector enterprises, as well as buildings construction and architecture projects. They also manage and administrate states buildings, preservation of heritage sites and the environment. Their vision is to provide cost-effective and functional premises for the Norwegian state (Statsbygg, 2016)

Most of the informants working In University colleges, have in the interviews mentioned at Statsbygg is the responsible for operating and maintaining the properties, they also said that they dontt have a close contact with the company concerning buildings maitenance and administration.

## INSTITUTION NR 1

**Institution overview**

| Type | Ownership | Property (floor area) | Number of users (2015) |
|------|-----------|----------------------|------------------------|
| University Govt. | The university owns most of the properties, and rents the rest from private firms | Around 80000 $m^2$ (2 Campus) | Around 7000 (students+ staff) |

## Background information

**FM /property management strategy and organizational structure**

The University has merged together with another University College. The organisation has administrative units which 3 of them are FM related: A division for property management, an IT division, and a division for call-centre and documents services and a financial management division. HR and staff are managed by the HR and organisation division.



The FM organizational position (marked with a green arrow)
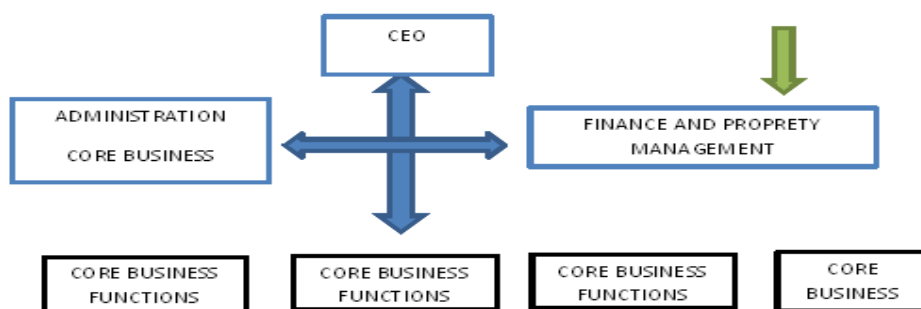
**Type of FM /Property management and services**

The technical division is operating, maintaining and administrating the buildings inside and outside areas. In addition to parking services, environmental station services, feedbacks, building inter control system and residential rental services. The IT division is responsible for IT operations, maintenance and user support services.

## Interview results

According to the building manager i interviewed, the department has many contractors because they outsourcer most of the FM services, which are not integrated in PM divisions. He pointed that the merging did not affect the organisational structure and its working in a good way. The division has limited budgeting and service provisions are managed by the procurement department. Every division has its own leader who is reporting to CEO/the headmaster of the University.

## INSTITUTION NR 2

**Institution overview**

| Type | Ownership | Property (floor area) | Number of users (2015) |
|------|-----------|----------------------|------------------------|
| University College. **Public** | Statsbygg owns most of the properties; The University college rents also a football stadium from a private real estate firm. | Around 23000 m2 | Around 4200 (students +staff) |

## Background information

### FM /property management strategy and organizational structure

The institution has an administration department that includes a financial management division that includes a property management section, a HR division and IT division. The other divisions are core business related. Stasbygg who is the owner of the properties is administrating, maintaining and operating the infrastructural structure of the buildings.



The FM organizational position (marked with a green arrow)
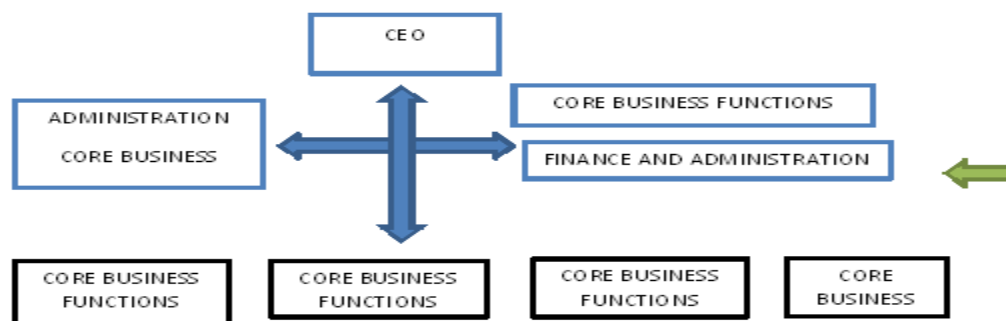
### Type of FM /Property management and services

The institution operates and maintains the buildings indoors. They also manage security, IT services and other Services related to the facility.

## Interview results

The PM Manager have the responsibility of the buildings operations, the department outsourcer most security services and some of the cleaning services are outsources due to high sickness rate amount cleaners. There are 2 reporting lines between the PM leaders and the headmaster of the institution. The finance department is responsible together with Statsbygg for service provisions.

## INSTITUTION NR 3

### Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|------|-----------|----------------------|------------------------|
| University college. .Public | Statsbygg is the owner of the property | Around 16000 m2 | Around 3000 (students+ staff )(2014) |

## Background information

### FM /property management strategy and organizational structure

The institution has a division for the technical building operations and IT centre, and a division for HR and financial management. The other divisions are core business related.

### Type of FM /Property management and services

Division for technical building operations are providing operating and maintenance services in addition to other operational Facility Services. The department manages also grounds maintenance, security and Environmental health and safety procedures. Statsbygg who is the owner of the property administrates, maintains and develops the building and its infrastructures.

**The FM organizational position (marked with a green arrow)**
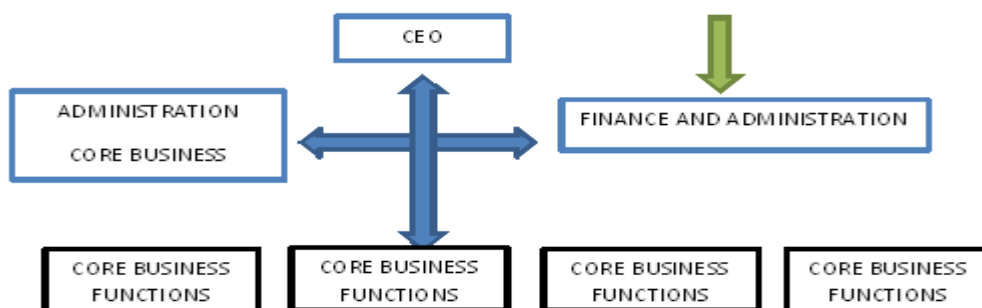


## Interview results

Most of the Services related to the facilities are outsourced. The division is responsible for service provisions and service level agreements together with Statsbygg. The property management has many leaders and units which are divided after type of PM Service.

## INSTITUTION NR 4

### Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|------|-----------|----------------------|------------------------|
| University college. **Public** | Statsbygg is the owner of the buildings | Around 10000 m2 | Around 900 (students+staff) |

## Background information

### FM /property management strategy and organizational structure

The institution has an administration department that includes a PM division which is charged with building operations and FS, a financial management department, IT division and HR division. The other divisions are core business related. Statsbygg personnel is also administrating, maintaining and developing the property infrastructures and outdoors.



The FM organizational position (marked with a green arrow)
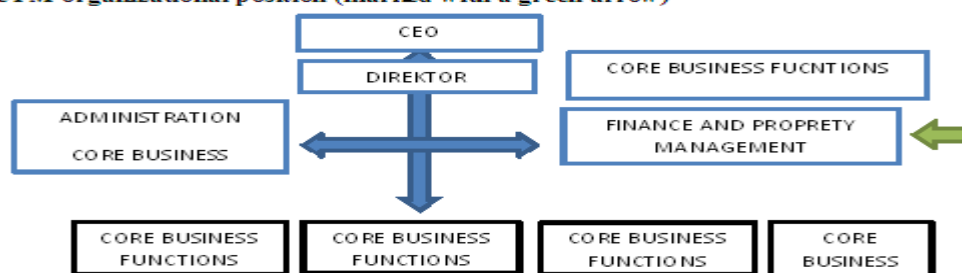
### Type of FM /Property management and services

The Property operation division is responsible for running the buildings technical operations, convention center, furniture and fixtures in auditoriums, signs halls and offices, access cards / keys and access control system. They also provide fire safety and lending of technical and audiovisual equipment (excluding IT equipment).In addition to building maintenance, cleaning, sanitation and rental / lending of premises. The IT division develops, maintains and operates digital services to staff and students.

### Interview results

The PM department produces the most of the services in-house. Service provisions are managed together with Statsbygg PM Managers, and are depending on the building and the user needs. The head of the financial division is the responsible for procurement of service provisions and the FM standards that are implemented. The PM division leaders report to the headmaster of the financial management department

### INSTITUTION NR 5

### Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|------|-----------|-----------------------|------------------------|
| University college Public. | Statsbygg and other private real estate firms. | 6 campus around 60000 m2 | Around 9000 (students+staff) |

### Background information

### FM /property management strategy and organizational structure

The institution has a section for property management and purchasing, a section for finance, IT section and HR section. The other sections are core business related. Statsbygg personnel administrate, maintain and develop three of properties. De other campus buildings are rented from other private real estate firms. .

The FM organizational position (marked with a green arrow)
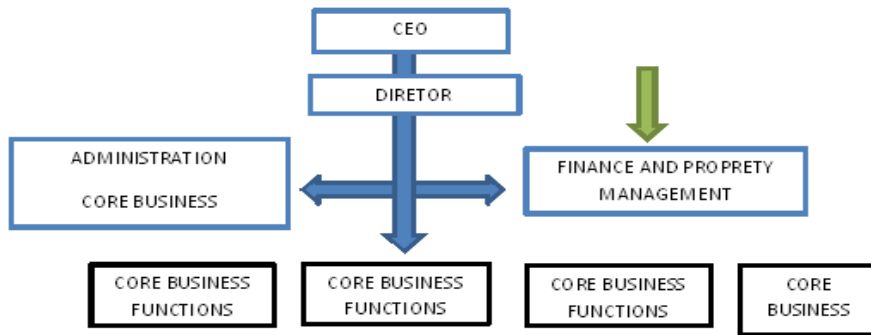
**Type of FM /Property management and services**

The section for property management is working with general legal advice, contract management (national / international and follow-up with landlords), and management of the institution property portfolio. In addition to operating and cleaning the properties, the section provides security services including access control and other facility services.

The IT division is responsible for IT management and user support, while The HR division is working with the organizations strategically development, HR coordination and administration

**Interview results**

Most of the FS are outsourced when it's needed and the financial management is responsible for services procurements. The PM section does not have a database for FM.  The section managers report to the headmaster of the institution.

**INSTITUTIONS NR 6**

**Institution overview**

| Type | Ownership | Property (floor area) | Number of users (2015) |
|------|-----------|----------------------|------------------------|
| University college Public. | Statsbygg and other private real estate firms are the owners of the buildings | Around 15000 m2 | Around 400 (students+ staff) |

**Background information**

**FM /property management strategy and organizational structure**

The institution has a division for financial and infrastructure management and a HR division. The other divisions are core business related. Statsbygg staff is responsible for maintenance and development of the buildings they own.

**Type of FM /Property management and services**

The financial management division has to units that is operating the buildings and maintaining its infrastructure including, cleaning, clearing waste and special waste.

The Operating unit is also responsible for ensuring that staff and students follow the rules for fire protection and ensures good HSE routines, technical equipment for telephony and access control, and a unit for IT management.


The FM organizational position (marked with a green arrow)
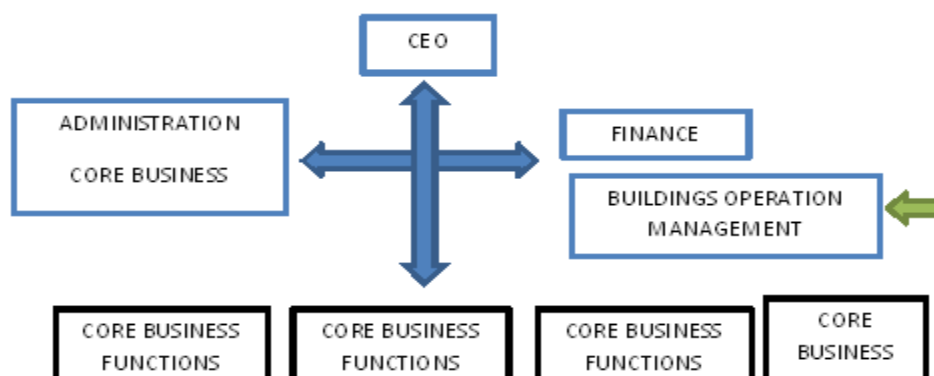
## Interview results

Most of the FM services are outsourced and the services are provided after users' needs FM standards need to be understood of the personnel. Service procurement is managed by the finance department. The PM division's leaders report to the institution headmaster.

## INSTITUTION NR 7

## Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|---|---|---|---|
| University college Public. | Statsbygg and other private real estate firms are the owners of the buildings | 8 campus  Around 140000  m$^2$ | Around 19000 (students+ staff ) |

## Background information

**FM /property management strategy and organizational structure**
The University College was established, after 3 University colleges have merged together.  The institutions have a divisions for buildings management, divisions for financial management, IT sections and HR divisions.

The establishment is renting most of the buildings from Statsbygg which is administrating, maintaining and developing the properties technical infrastructures and installations indoors and outdoors. De other buildings are rented from private real estate firms.

**The FM organizational position (marked with a green arrow)**
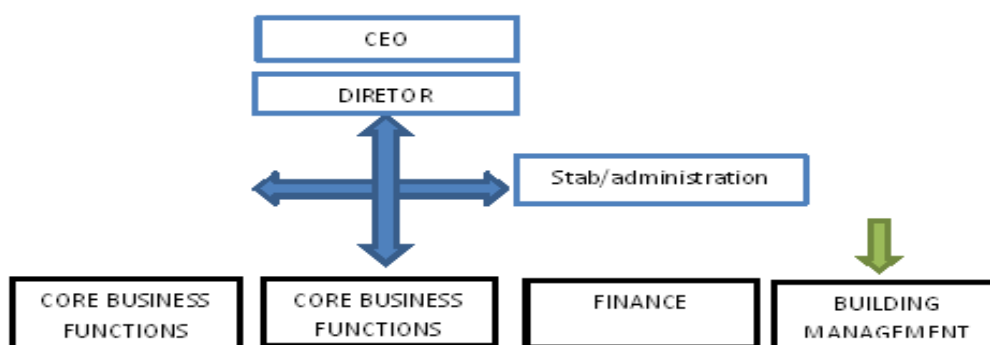


## Type of FM /Property management and services

The department is running the buildings technical operations and other facilities services including security, grounds maintenance and EHS processes.

## Interview results

The PM division is managing the buildings operations together with Statsbygg personnel. The services procurement are managed by the finance departement.The divisions' leaders report to the headmaster in every institution.

## INSTITUTION NR 8

## Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|---|---|---|---|
| University college Public. | Statsbygg is the owners of the buildings | 5-7 buildings  Around 30000 m2 | Around 5100 (students+staff ) |

## Background information

## FM /property management strategy and organizational structure

The institution has a main administration department which includes a finance and property management division, IT division and HR and organisation division. The other divisions are core business related, Statsbygg staff is administrating, maintaining and developing the buildings infrastructures. The divisions' leaders report to the headmaster in every building.

The FM organizational position (marked with a green arrow)
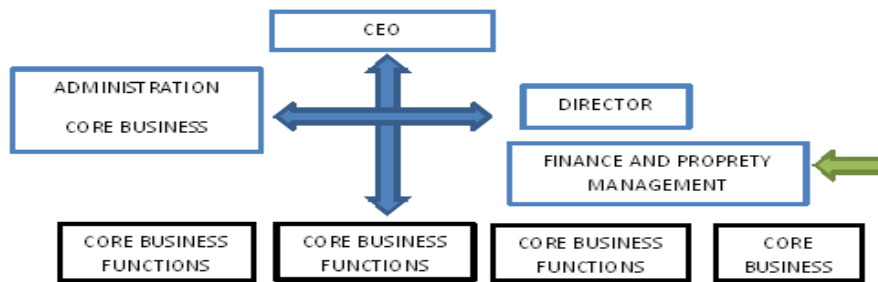
## Type of FM /Property management and services

The property division is running a Service Center which is the center for internal services to the school staff and the daily structural building operations, it involves services such as: mail, switchboard, cleaning, building maintenance, security, planning of various events and other facility services. The IT division is responsible for IT management and the user support.

## INSTITUTION NR 9

## Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|---|---|---|---|
| University collegue Public. | The University college is actually renting the properties from 6 different real estate firms. Statsbygg is building new locations for the institution. | Around 15000 m2 | Around 400 ( students+staff) |

## Background information

## FM /property management strategy and organizational structure

The institution has a division for financial and IT management and a HR and property management division. The other divisions are core business related.


The FM organizational position (marked with a green arrow)
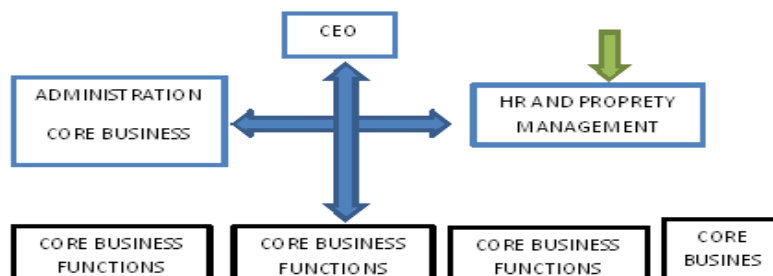
## Type of FM /Property management and services

The property management division operates the building and maintainin its infrastructure, including cleaning, clearing waste and special waste. The Operating unit is responsible for ensuring that staff and students follow the rules for fire protection and ensures good HSE routines, technical equipment for telephony and access control.

### Interview results

Most of the FS are outsourced and the finance department is managing the procurement of the services. The managers of the divisions report to the headmaster of the institution, the building's owners and the fire department.

## INSTITUTION NR 10

### Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|---|---|---|---|
| University public. | Most of the properties are owned. The institution is also renting other properties from private real estate firms. | Around 356000 m2 | Around 19000 (students+staff ) |

### Background information

### FM /property management strategy and organizational structure
The University has a central administration department with 3 PM related units: A division for property management, an IT division, and a financial management division. There are to reporting lines between the FM divisions' leaders and the headmaster of the establishment.



The FM organizational position (marked with a green arrow)
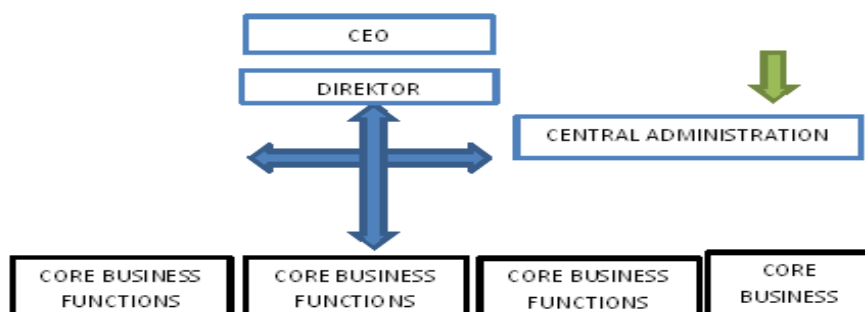
### Type of FM /Property management and services

The property management division is responsible for the buildings operations, maintenance and infrastructural development, constructions projects and management.  The division   provides also Security services, production, programming and delivery of access cards to students and staff, as well as grounds management. The IT division is providing IT services and user support.

## INSTITUTION NR 11

### Institution overview

| Type | Ownership | Property (floor area) | Number of users (2015) |
|---|---|---|---|
| University college Govt. | Statsbygg owns one building .The institution is renting the rest of properties from real estate private firms. | Around 170000 m2 | 21000 (student+ staff) |

## Background information

### FM /property management strategy and organizational structure

The institution has a department of technology and infrastructure that includes a division for property management and an IT division.

The department of organizational management has a HR division, a financial management division and a HSE division. The other divisions are core business related. Most of the services related to the facilities are outcoursed and there are 2 reporting lines between the PM divisions' leaders and the headmaster of the establishment.



The FM organizational position (marked with a green arrow)
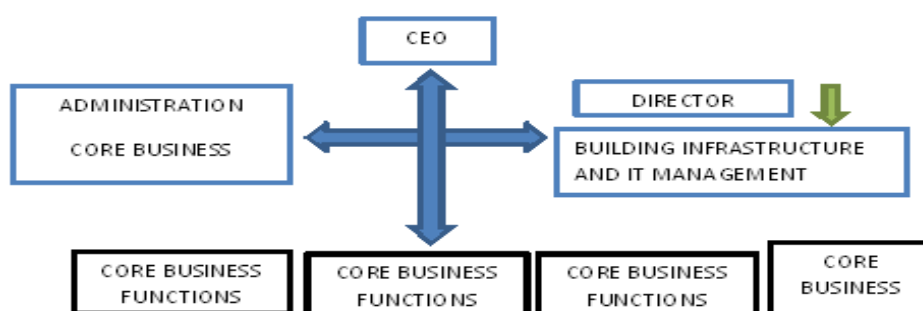
### Type of FM /Property management and services

The property management division is responsible for the buildings operations and maintenance indoors and outdoors, constructions projects management and design and ESH routines

### 5.2 FM maturity matrix results

#### Maturity Pattern Table – PRESENT SITUATION

| Institution | 1 | 10 | 4 | 3 | 9 | 6 | 7 | 5 | 8 | 11 | 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Strategy | | | | | | | | | | | |
| 1.1 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 3 | 4 |
| 1.2 | 3 | 5 | 4 | 4 | 2 | 4 | - | 2 | 5 | 3 | 4 |
| 1.3 | 3 | 5 | 4 | 4 | - | 4 | 3 | 5 | 5 | 3 | 3 |
| 1.4 | 3 | 5 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 3 | - |
| Standard and Policies | | | | | | | | | | | |
| 2.1 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 4 | 2 | 3 |
| 2.2 | 4 | - | 3 | 3 | 4 | 3 | - | 2 | 5 | 4 | 3 |
| Planning and Budgeting | | | | | | | | | | | |
| 3.1 | 2 | 5 | 3 | 4 | 1 | 2 | 2 | 3 | 5 | 4 | 4 |
| 3.2 | 4 | 5 | 4 | 2 | - | 4 | - | 4 | 5 | 2 | 4 |

| 3.3 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 3 | 5 | 3 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Service Provisions** | | | | | | | | | | | |
| 4.1 | 1 | 3 | 1 | 1 | 1 | 3 | - | 4 | 1 | 1 | 2 |
| 4.2 | 3 | 1 | 3 | 1 | 1 | 2 | - | 3 | 1 | 3 | 4 |
| 4.3 | 4 | 3 | 4 | 2 | 1 | 2 | - | ? | 4 | 4 | - |
| 4.4 | 2 | - | 3 | 2 | 2 | 4 | - | 2 | - | 2 | 4 |
| **Organisations fit for purpose** | | | | | | | | | | | |
| 5.1 | 2 | 4 | 3 | 3 | 1 | 4 | - | 2 | 5 | 3 | 1 |
| 5.2 | 2 | 5 | 4 | - | 1 | - | - | 2 | 5 | 4 | 1 |
| 5.3 | 2 | 3 | 3 | 3 | 1 | 2 | - | 3 | 4 | 2 | 1 |
| **Performance Management and Management Information System** | | | | | | | | | | | |
| 6.1 | 5 | - | 4 | 5 | - | 2 | - | 1 | 4 | 2 | 1 |
| 6.2 | 1 | - | 2 | 5 | - | 3 | - | - | 3 | 2 | - |
| 6.3 | 3 | 4 | 4 | 3 | - | 4 | - | 2 | 2 | 1 | 4 |
| 6.4 | 5 | - | 2 | 3 | - | 4 | - | 4 | 4 | 1 | 4 |
| **Personal Development** | | | | | | | | | | | |
| 7.1 | 3 | 5 | 5 | 4 | 3 | 3 | - | 3 | 5 | 3 | - |
| 7.2 | 3 | 5 | 3 | 3 | 4 | 3 | - | 4 | 5 | 3 | 4 |

## Maturity Pattern Table – EXPECTED SITUATION

| Institution | 1 | 10 | 4 | 3 | 9 | 6 | 7 | 5 | 8 | 11 | 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Strategy** | | | | | | | | | | | |
| 1.1 | 5 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 |
| 1.2 | 5 | 5 | 4 | 4 | 4 | 5 | - | 3 | 5 | 5 | 4 |
| 1.3 | 5 | 5 | 4 | 4 | - | 5 | 4 | 5 | 5 | 5 | 4 |
| 1.4 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 5 |
| **Standard and Policies** | | | | | | | | | | | |
| 2.1 | 5 | 4 | 5 | 3 | 4 | 2 | 2 | 4 | 4 | 5 | 4 |
| 2.2 | 4 | - | 5 | 3 | 4 | 5 | - | 4 | 5 | 5 | 4 |
| **Planning and Budgeting** | | | | | | | | | | | |
| 3.1 | 5 | 5 | 5 | 5 | - | - | 2 | 4 | 5 | 5 | 4 |
| 3.2 | 5 | 5 | 5 | 4 | - | 5 | - | 5 | 5 | 5 | 4 |
| 3.3 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 3 | 5 | 5 | 4 |
| **Service Provisions** | | | | | | | | | | | |
| 4.1 | 1 | 3 | 4 | 1 | 1 | - | - | 4 | 1 | 5 | 4 |
| 4.2 | 3 | 1 | 5 | 1 | 1 | 4 | - | 3 | 1 | 5 | - |
| 4.3 | 4 | 3 | 5 | 2 | - | 4 | - | - | 4 | 5 | - |
| 4.4 | 4 | - | 5 | 2 | - | 4 | - | 4 | - | 5 | 4 |
| **Organisations fit for purpose** | | | | | | | | | | | |
| 5.1 | 5 | 4 | 3 | 3 | - | 4 | - | 4 | 5 | 5 | - |
| 5.2 | 5 | 5 | 4 | - | - | ? | - | 4 | 5 | 5 | - |
| 5.3 | 5 | 3 | 3 | 3 | - | 4 | - | 3 | 4 | 5 | - |
| **Performance Management and Management Information System** | | | | | | | | | | | |
| 6.1 | 5 | 5 | 4 | 5 | - | 4 | - | 4 | 4 | 5 | 4 |
| 6.2 | 5 | - | 5 | 5 | - | 3 | - | 4 | 4 | 5 | 5 |
| 6.3 | 5 | 4 | 4 | 3 | - | 4 | - | 2 | 4 | 5 | 5 |
| 6.4 | 5 | - | 3 | 3 | - | 4 | - | 4 | 4 | 5 | 4 |
| **Personal Development** | | | | | | | | | | | |
| 7.1 | 5 | 5 | 5 | 4 | 5 | 4 | - | 3 | 5 | 5 | - |
| 7.2 | 3 | 5 | 3 | 3 | 4 | 3 | - | 4 | 5 | 5 | 4 |

## 5.3  SSPS results

Pearson correlation of the signifiquant results of  maturity profiles sub-heading in 11 institutions

| Maturity profiles sub-headings | Corporate objectives (Present) |
|---|---|
| Interrelationship between proprety an FM (Present) | ,841** |
| Interrelationship between proprety an FM (Expected) | ,757** |
| Budgetary regime (Present) | ,674* |
| Corporate objectives (Present) | 1 |
| Society Results (present) | ,562 |
| The interrelationship of financial process to standards and policies(Present) | ,538 |
| Budgetary regime (Expected) | ,528 |
| Customer Results (Present) | ,501 |
| Demonstrating the value to the business (present) | ,498 |
| Database (Present) | ,490 |
| The interrelationship of financial process to standards and policies(Expected) | ,481 |
| Organisational development (Present) | ,450 |
| Database (Expected) | ,450 |

| Maturity profiles sub-headings | Strategy (Present) |
|---|---|
| Strategy (Present) | ,818** |
| User`s responsability on space drivers (Present) | ,815** |
| Customer Results (Present) | ,767** |
| Corporate benefits (present) | ,753** |
| Utilisation of Database (Present) | ,735** |
| Engagement and empowerment (Expected) | ,733* |
| External partnerships (Expected) | ,726* |
| Training for gaining knowledge and skills (Present) | ,724* |
| Demonstrating the value to the business (Expected) | ,716* |
| Budgetary regime (Expected) | ,680* |
| External partnerships (present) | ,670* |
| Corporate benefits (present) | ,651* |
| Provision of trategy and services (Expected) | ,639* |
| Interrelationship between proprety an FM (Expected) | 1 |
| Society Results (present) | ,601 |
| Organisational development (Present) | ,564 |
| Controlling of services (Present) | ,560 |
| Customer Results (Expected) | ,521 |
| Presence and ownership of standards and policies (Expected) | ,491 |
| Budgetary regime (Present) | ,483 |

| Maturity profiles sub-headings | Presence and ownership of standards and policies (Present) |
|---|---|
| Provision of trategy and services (Expected) | -,232 |
| Management of property and FM services (Expected) | -,207 |
| Budgetary regime (Expected) | -,185 |
| Demonstrating the value to the business (present) | -,118 |
| Corporate objectives (Present) | -,057 |
| Corporate benefits (present) | 0,000 |
| External partnerships (present) | 0,000 |
| Integration of policies and standards at all levels (present) | 0,000 |
| Management of property and FM services (Present) | 0,000 |
| Controlling of services (Expected) | 0,000 |
| Integration of policies and standards at all levels (Expected) | 0,000 |
| Training for gaining knowledge and skills (Expected) | 0,000 |
| Customer Results (Expected) | ,066 |
| Engagement and empowerment (present) | ,102 |
| Customer Results (Present) | ,155 |

| | Integration of policies and standards at all levels (present) |
|---|---|
| Interrelationship between proprety an FM (Expected) | ¬154 |
| User`s responsability on space drivers (Present) | ¬113 |
| Corporate objectives (Present) | ¬113 |
| Customer Results (Present) | ¬043 |
| The interrelationship of financial process to standards and policies(Present) | ¬030 |
| External partnerships (Expected) | ,012 |
| The interrelationship of financial process to standards and policies(Expected) | ,070 |
| Budgetary regime (Present) | ,110 |
| Provision of strategy and services (Present) | ,137 |
| Organisational development (Expected) | ,154 |
| Corporate benefits (present) | ,158 |
| Presence and ownership of standards and policies (Present) | ,209 |
| Database (Expected) | ,211 |
| Budgetary regime (Expected) | ,248 |
| Training for gaining knowledge and skills (Present) | ,255 |
| Demonstrating the value to the business (present) | ,287 |

| | Controlling of services (Present) |
|---|---|
| Engagement and empowerment (Expected) | -,040 |
| Corporate objectives (Present) | 0,000 |
| Presence and ownership of standards and policies (Present) | 0,000 |
| Interrelationship between proprety an FM (Present) | ,055 |
| The interrelationship of financial process to standards and policies(Present) | ,060 |
| Demonstrating the value to the business (present) | ,068 |
| Procurement strategy for FM and proprety services (Present) | ,092 |
| Database (Present) | ,115 |
| Provision of strategy and services (Present) | ,119 |
| Controlling of services (Expected) | ,187 |
| Demonstrating the value to the business (Expected) | ,193 |
| Strategy (Present) | ,212 |
| Engagement and empowerment (present) | ,232 |

| | Organisational development (Present) |
|---|---|
| Demonstrating the value to the business (present) | ,847** |
| Strategy (Present) | ,818** |
| Training for gaining knowledge and skills (Present) | ,809** |
| Demonstrating the value to the business (Expected) | ,777** |
| Controlling of services (Expected) | ,730* |
| Budgetary regime (Expected) | ,725* |
| Provision of trategy and services (Expected) | ,720* |
| Strategy (Expected) | ,716* |
| Procurement strategy for FM and proprety services (Present) | ,690* |
| Budgetary regime (Present) | ,675* |
| Engagement and empowerment (Expected) | ,667* |
| Database (Expected) | ,649* |
| Interrelationship between proprety an FM (Present) | ,632* |

 These results indicates that there are strong correlations between the present situation of the strategy sub-headings levels ( strategy and corporate objectives) and  organisation development, service provision and performance management sub-headings levels.

In the meanwhile, we can see that there  are no relationchips between the  present situation of the sub-headings level of  the presence and the ownership of standards and policies and the intergration of policies and standards, management of proprety and FM services and th expected situation of controlling the services level.  There are also no correlations between the present situations of Controlling of the services levels and the presence of the standards and the ownership of the standards  and corporate strategic objectives.

**Strategy**

The stategy profile results show sub-headings means beween levels 3 and 4, both for present and expected situations. There are variation in the frequencies  ( level 4 and 5 are repeated frequently in corporate objective and corporate benefits for the present and the expected situation) ,   and the histograms shows a normal disturbution for the strategy levels for both situations, while there is som positiv skewness in the levels of the expected situation. The Pearson correlation shows a good relation between the present and the expected situation for all the sub-heading levels.

**Standards and policies**

The maturity levels sub-headings means of present and the expected situations, for the standards and policies profile are between2 and 3. levels 2 and and 3 a frequent in the present situations, while level 4 is frequent I the ecpected situations . There is a normal distribution around these levels. The sub-headings levels for the present and the expected situations are correlated.

**Planning and budgeting**

The means for the sub-headings levels for the present and the expected situations are around 3, and 4 for the expected users reponssability on space drivers. Level 4 is frequent in the present situation for budgetary regime and level 5 in the expected situations for all sub-headings.there is a positive skewness for the expected situation of users responsibility sub-heading. The correlation results show a strong relation between the present and the expected situation of budgetary regime and the interrelationchip og financial process to standards and policies levels.

**Service provision**
The maturity levels sub-headings means for present and the expected situations of the service provision profile are between 1 and 2. Levels 1 is frequent in the present and expected situation of management of proprety and FM services and controlling of the services, while level 4 is frequent in the expected situation for external parternship. There is a signifant correlation between the present and expected situations of procurement strategy for FM and proprety management levels.

**Organisation fit-for purpose**

The means for the profile sub-headings levels are between 2 and 3. The levels 3 is frequent in the present and the expected situation of demonstrating the value of the business sub-heading, though level 5 is frequent in the expected situation of provision of strategy and services sub-heading.the histograms shos a normal distribution for all subheading. The correlation is signifiquant for the present and the expected situations of organisational development and demonstrating the value to the business levels.

**Performance management (PM) and the management information system (MIS)**

The levels means of the sub-headings varies between 1 and 3 . Levels 4 are frequent in the present situation of customer and society results sub-headings. Wihle level 5 is frequent for the expected situation of utilistaion of database. There are strong correlations between the present and the expected situation of database and database utilisation levels, and costumer and society levels

**Personnel development**
The personnel developement sub-headings levels means are around 3. The level 3 is frequent in the present situation of training and gaining knowledge and skills and engagement and empowerement. In the same time level 5 is frequent in the expected situation of training and gaining knowledge and skills. The correlation results show a good relationship between all the subheadings levels.

### 6. CASE STUDIES ANALYSIS AND DISCUSSION

The qualitative research shows that most of the selected institutions have a flat functional organisations structure based on functions and roles (Roos et al, 2014, p.321). The property management division is often managed by the finance department, which is quite normal in functional organisations. I can also notice that the FM organisations are not directly managed by the CEOs of the institutions, but by many PM Managers. This also varies from institution to another; some institutions have Property manager for every type of service, like cleaning, maintenance and building operations. Although it was not clear how the FM organization is structured due to the difficulties to finding the write information on the institutions websites. Institutions 3, 8 and 10 provide both hard and soft FM services in their divisions. The the rest of the institutions choose to separate buildings operations and maintenance and the other soft FM services

(reception, security, IT, etc.). The background results show that these institutions provide a variety of services to their users, and most of the FM services are outsourced or out-tasked using SLAs. The smallest University college ($10000m^2$) which is institution nr 4 is producing most of the FM services in-house. SPSS correlation results of all the FM maturity profiles sub-headings levels in the institutions show that there is a strong relationship between the strategy and the organisation development profile. In the meantime, there is a weak or none relationship between standards and policies integration and ownership and the management of the proprety and the FM services.

The mean of FM strategy and the frequencies in these FM organisations is in the qualified management position, which means PM and FM are patially strategicaly integrated , but it is expected that both will be integrated with communication and improvements plans to maximise benefits and minimize costs. Pearson's correlation shows also a good relationship between the present and the expected strategy levels. Institution nr 8 had the highest strategy profile levels.

Standards and policies statistics results are in the qualified management position, although there is some variance in the integrations of the standards. This shows that most of these institutions have written standards and policies, but they are not fully implemented and are not clear to the FM operators. In the mean while it's expected that the standards and policies will be understood and partially integrated, there is also a good correlation between the present and the expected situation of the implementation and the integration of the standards levels.

The mean of the FM planning and budgeting is in the plus qualified management position. There are some differences in the standard deviations of the present and the expected budgetary regime, and the financial processes. This means that the financial planning and budgeting in these FM organisations are based on performance measures.There is also a relationship between the property, the users and the FM costs levels. But the correlation of the present and the expected situation of FM planning and budgeting levels is not strong enough, especially for the users' responsibility.

The service provision shows a basic level of management, and there is some significant variance for the present and the expected situations. This means that the services in most of these institutions are accomplished by tasks, procedures and are controlled by managers. In the mean while Pearson correlations show a weak relationship between the management of property and FM services present situations levels, and procurement strategy for FM and controlling of the services present and expected situations levels. This indicates that managing and controlling the services are on the basic level and there is not a specific strategy for the FM services provision.

The organisation fit-for purpose present and expected correlation results indicates that there is a strong relationship between organisational development and the demonstration of the value of FM to the core business , the mean also indicates that these institutions expect an organisational framework for FM development to business outcomes.

The mean results of the PM and the MIS (Management information systems) maturity profiles levels show a qualified management position. Although most of these institutions may not have a central database to store and control FM information and processes, both customer satisfaction and environmental and social obligations are partially integrated in the FM performance management, but the correlations results indicate that there is a strong relationship between the database, customer and society results for both present and expected situations, this means that these institutions have a PM and MIS strategy.

The personnel development statistical results show a plus qualified management position. This means that these institutions have a strategy for training and empowering their personnel. And they expected to improve the personnel knowledge skills and their engagement.

Most of the Universities and the University colleges have an FM organisation that supports the core business, this supports the theoretical definition of FM by Sæboe and Blakstad (2009). Statsbygg who owns

most of these institutions buildings, operate and maintain the properties, this means that FM organisation in these institutions may have limited knowledge about the process of these services. The institutions provide many services to their users, which means that these FM responsables are service oriented . Most of the FS are outsourced , this means that the PM managers work primarily with contract managements and SLAs because they have to manage and follow up these agreements . The organisations ` organisational models are function based and  they work by standardised line operations and management (Roos et al, 2014, p.321),  I think this may be the reason why the FM service provisions are delivered by line management in most of these institutions . The strategy maturity levels results indicate the presence of the FM strategy in these institutions, but there is still may be some lack of understanding and communicating the importance of the FM integration in Property management strategy, to deliver value to the core business and for an effective property management.

While Standards are important in FM procedures and strategy as it's mentioned in the theoretical part, the maturity profile results shown that many of these property managers, may still have to improve the ownership and the integration of standards and policies in their buildings operations and make them clear for their workers.

The financial management strategy results shown that most of the institutions  is planned  and budgeted according to services performance measures, this means that the financial processes are not communicated enough with the organisation and the users, to raise awareness and improve FM costs reduction just as Booty (2009, 192-196)   mentioned before. However it's clear that these PM Managers want a full coordination and understanding of the FM costs in the organisation, and continuous communication with the users leads to more efficient use of the buildings.

Aktin and Books (2009, p.172-172) theory about effective FM management and control rely on well-defined FM processes procurement, measurement of FM contracts performance against the business needs and the users expectations. It is likely that this is not fully accomplished in these institutions FM organisation.

 It is important that the organisational development of these Universities and University colleges examine the quality and the integration of PM and FM services, in order to get better core business and FM outcomes.  From the SPSS descriptive statistics of organisation fit-for purpose, i can see that there is gap in the integration and the communication of FM with PM and the core business.

The improvement of FM performance management in most of these institutions may still be based on the user complaints and lack of new PM and FM technologies like a database that enable  quick finding of buildings information and activities in order to measure  FM performances and users' needs. However the institutions managers, expect the inclusion of more PM technologies in the buildings for a better PM and FM information management and environment and social responsibility.

The managers of these institutions appreciate and recognize the value of training and developing the personnel's FM skills and they expect to implement more improvement activities to allow the personnel to communicate their needs, which I think it's a good strategy for creating better FM values, team work and engagement.

### 6.1 The FM maturity matrix limitations

 The FM maturity matrix is a useful way to measure FM maturity in organisations who want to achieve Excellency for FM cost reductions and effectiveness. The matrix's 7 profiles  can be considered as very important to analyse further in Norwegian FM organisations, however some  sub-headings in every profiles may not be relevant and can misinterpreted by the FM managers. This includes the communication of planed FM strategies in the organization and the owners of the properties, which I think it can be understood by the managers as they may have to involve the buildings owners and users in FM planning and delivering and

which is not very common in the Norwegian FM organisations. The standards subheading focusing on the integrations of standards in the financial processes and feedbacks from the users, this is also can be misunderstood because standards are not considered as policies. While FM planning and budgeting profile considers clear ownership and relationship of property and FM costs and processes are Excellency, this may not be understood of PM Managers in Universities and University colleges and Statsbygg personnel or the other real estate firms. The profile is also limited concerning how FM budgeting regime has to be planned and what this means to the buildings live cycle costs and performance costs. Managing and controlling the FM services by a team of a local management committee with users and clients considered as a very good maturity level. I think this may not be considered by the Norwegian FM managers in these institutions because sitting and discussing FM services with users are not common in Norway. In the other hand I think effective service provision has to done both from the customers and the providers' sides, by analysing the building environment, its culture and measuring FM performances. The organisation fit –for purpose and performance management sub-headings I think are good maturity levels, but i ,m not sure they can be applied in FM organisations who is dealing with outside buildings operations like parking and gardening's services, because these services are difficult to measure.At the the same time, I find the performance management (PM ) and the management information systems (MIS) profile, very limited regarding sustainability in building operations and the need to reduce resources and provide routines and materials that help decrease occupant health issues along with protecting the building and the envirement.

## 7. CONCLUSION

In this finale section i will summarise the study and draw together the main findings in relation to the main questions concerning the background of the research. As well as the implications and the limitations in the study.

The research`s aim is answering 2 main questions concerning the present and expected FM maturity profiles levels in Universities and University colleges using an FM maturity matrix, and identifying the FM gaps and pitfalls in these organizations by comparing the data provided by the informants with the FM profile matrix's excellency levels and the FM theoretical key performance indicators mentioned by Atkin and Brooks (2009) and Booty (2009). The methodology used in this research is case study (multiple case studies) of the Universities and University colleges FM organizational structure and how FM responsibles in these institutions consider and perceive FM and what are their expectations for an effective FM in their organizations. This was done by using a combination of qualitative and quantitative methods, in the form of background research interviews and FM maturity matrix questionnaire.

The main findings in this research shows that most of the institutions buildings which are public, are owned and partially managed by Statsbygg personnel. These institutions has an FM strategy that support the core business and they provides many services related to the users and the facilities. Their organisational structures are function based and the Property management section is often manged but the finance department. The FM standards and policies are not fully integrated or understood in the organisations but it's expected to improve the integration of the standards to make them clear to the workers. The FM financial management and service provisions are planned according to service performance measures but it's expected the coordination and the understanding of the FM costs in the organisation to reach effective FM costs and performance. Similarly, the FM organisation in most of the institutions may not be integrated and communicated with the core business and the buildings' owners. The FM performance may still rely on users' complaints and line management with the expectation of including more FM technologies to facilitate the FM tasks. Furthermore, FM personnel training and development is very important for the FM organisation in these Universities and Universities colleges.

The research implications can be illustrated in the lack of some informants' collaboration to get as much information as possible and the limited time contributed to finish this thesis.

The major limitations of the study are the interpretation of the FM matrix profiles sub-headings. This should be improved and reduced to fit the Norwegian FM strategies and work environment.

As a conclusion, the FM organisations in Universities and University colleges need to improve and build more FM competence in order to manage buildings effectively. This can be done by the write implementation and understanding of the FM standards, the use of intelligent buildings system technologies, like BIM (buildings information system), helpdesk and database and managers and operators skills and FM knowledge's development. Communicating and integrating FM in the organisation and the property management will contribute to a better understanding of FM costs and processes. Thus, involving the users and the building owners in FM tasks and planning will improve the quality of the buildings and demonstrate more value to the organisation.

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**Figures:**

**Figure nr 1,** NS-EN 15221-1:2006. (2007). Fasilietestyring-Del1: Termer og Definisjoner.Hentet 15 April 2016 fra

 Norwegian FM standards


**Energisparetjenester**
>    NS 6430 Alminnelige kontraktsbestemmelser for energisparing (EPC)
>    NS-EN 15221-3 Fasilitetsstyring (FM) - Del 3: Veiledning om kvalitet i fasilitetsstyring

**Skjøtsel av grøntanlegg**
>    NS 3450 Konkurransegrunnlag for bygg og anlegg - Redigering og innhold
>    NS 8405 Norsk bygge- og anleggskontrakt (med tilhørende blanketter)
>    NS 8406 Forenklet norsk bygge- og anleggskontrakt (med tilhørende blanketter)
>    NS 8433 Alminnelige kontraktsbestemmelser for skjøtsel og drift av park- og landskapsanlegg
>    NS 3420-CK Beskrivelsestekster for bygg, anlegg og installasjoner - Del CK: Drift ogskjøtsel av uteanlegg


**Vakt og sikkerhetstjenester**
NS-EN 15221-2 Fasilitetsstyring - Del 2: Veiledning for utarbeidelse av avtaler omfasilitetsstyring
>    NS 8434 Alminnelige kontraktsbestemmelser for manuelle vakt- og sikkerhetstjenester


**Byggdriftstjenester**
>     NS 6425 Krav og anbefalinger ved anskaffelse av drifts- og vedlikeholdstjenester til bygninger og eiendom (byggdriftstjenester) (under utarbeidelse)
>    NS 3424 Tilstandsanalyse av byggverk - Innhold og gjennomføring
>    NS 3451 Bygningsdelstabell
>    NS 3420-Z Beskrivelsestekster for bygg, anlegg og installasjoner - Del Z: Drift og vedlikehold


**Vedlikehold av heis**
>    NS 3809 Kontraktstandard for drift og vedlikehold heis (under utarbeidelse)
>    NS 3810 Periodisk sikkerhetskontroll på heiser, løfteplattformer, rulletrapper og rullende fortau


**Fasilitetstjenester generelt (alle typer tjenester)**
>    NS-EN 15221-1 Fasilitetsstyring - Del 1: Termer og definisjoner
>    NS-EN 15221-2 Fasilitetsstyring - Del 2: Veiledning for utarbeidelse av avtaler om fasilitets-styring
>    NS-EN 15221-3 Fasilitetsstyring (FM) - Del 3: Veiledning om kvalitet i fasilitetsstyring
>    NS-EN 15221-4 Fasilitetsstyring (FM) - Del 4: Rammeverk, klassifisering og strukturer i fasilitetsstyring
>    NS-EN 15221-5 Fasilitetsstyring (FM) - Del 5: Veiledning i fasilitetsstyringsprosesser
>    NS-EN 15221-7 Fasilitetsstyring (FM) - Del 7: Veiledning om benchmarking av ytelser
>    NS 3940 Areal- og volumberegninger av bygninger (med veiledning)
>    NS-ISO 10004 Kvalitetsstyring - Kundetilfredshet - Retningslinjer for overvåking og måling
 **renhold**
>    NS-INSTA 800 definerer kvalitet av renholdstjenester og hvordan det skal måles
>    NS-INSTA 810 beskriver selve anskaffelsen
>    NS 8431 er kontraktstandarden for renhold


Kilde. http://www.nbef.no/fileadmin/Kursprogrammer/2015/1550105_Byggdrift_Omfang-ytelser-kontrakt/N_250_Eiendomsforvaltning-Avtaler-om-fasilitetstjenester_Faktaark_Januar_2015.pdf

# MATURITY MODEL QUESTIONNAIRE

**Undersøkelse av organisasjonsmodenhet i FM organisasjoner.**

Metoden benytter seg av sju kriterier for å fastsette modenheten til en FM organisasjon.

Kriteriene er:

1. Strategi
2. Standard og fremgangsmåte
3. Planlegging og budsjettering
4. Tjenesteanskaffelser
5. Hensiktstilpasning
6. Forvaltningsutførelse
7. Personal utvikling

**Data fra selskap og kontaktperson.**

**Prøv og beskriv primær produktet, tjenester og virksomheten til organisasjonen:**
_____

Hvem vil være kontaktpersonen for benchmarkingsprosessen for deres organisasjon? *( Vær så snill å fyll ut kontaktperson data under)*

| Navn: | |
|---|---|
| Tittel: | |
| Organisasjon: | |
| Adresse: | |
| Telefon: | |
| E-mail: | |

## Organisasjons data

**Kryss av for det som best beskriver deres facility management struktur**

Separat Facility Management Avdeling

En divisjon med større avdelinger (Eiendom, finans, personalavdeling, etc.)

Fordelt på ulike avdelinger

**Til hvilken del av organisasjonen blir deres facility management funksjon rapportert til?**

Styret/ledelsen

Finans og administrasjon

Personalavdeling

Eiendomsavdeling

IT

Driftsavdeling

Andre (beskrivelse)

**Hvor mange rapporteringsledd er det mellom administrerende direktør og lederen for FM?**

Antall_____ (tell med adm.dir)

**Hvilke av de følgende funksjonsansvarlige rapporter til FM avdelingen?** (kryss av for de det gjelder)

Eiendomsansvarlig                                      Resepsjon og administrasjonstjeneste

(Planning and design)                                 Post- budtjenester

(Project and construction management)                 Tele- og IT-tjenester  Drift og vedlikehold

(Purchasing) operations and maintenance)              Gartnertjeneste

(Records Management)

HMS                                                   Andre (beskrivelse)

Sikkerhetstjeneste

# 1. Strategi

*Kryss av for det meste aktuelle nivå med tanke på FM- strategi i din bedrift slik som det er i dag, og ett kryss for det nivået bedriften tror er et forventet nivå for organisasjonen.*

| 1.1 Felles mål *(Hvordan er felles mål styrket ved FM strategi?)* | | | | |
|---|---|---|---|---|
| 1-FM og eiendomsstrategi er ikke en integrert del av selskapets fremtidsplan.<br><br>Nåværende<br>Forventet | 2-Ingen fastlagt mål, men et felles system for strategisk veiledning.<br><br>Nåværende<br>Forventet | 3-Målene er delvis styrket ved FM og eiendomsstrategier.<br><br>Nåværende Forventet | 4-Styrket ved delt strategisk veiledning på:<br>1. Eiendomsforvaltning<br>2. Facility Management<br><br>Nåværende<br>Forventet | 5-Er styrket ved fullstendig veiledning. Veiledningen er overført til organisasjonen.<br><br>Nåværende<br>Forventet |

| 1.2 Strategi *(Hvordan er eierskapet til FM- strategien?)* | | | | |
|---|---|---|---|---|
| 1-Ingen nedskrevet strategi. Ledelsen handler individuelt i kommunikasjons-beslutninger.<br>Nåværen<br>Forventet | 2-Ikke tvunget gjennom av bestemte eierskap eller prosesser.<br><br>Nåværende<br>Forventet | 3Eiet, men ikke alltid tydelig tvunget igjennom av eierskap eller prosesser.<br><br>Nåværende Forventet | 4-Eiet og gjennomført av prosesser. Noe kommunikasjon mellom nivåer er oppnådd.<br><br>Nåværende<br>Forventet | 5-Er tydelig eiet og styrket gjennom prosesser. Kontinuerlig forbedringer er filosofien.<br><br>Nåværende<br>Forventet |

| 1.3 Innbyrdes relasjon mellom eiendomsforvaltning og facility management | | | | |
|---|---|---|---|---|
| 1-Ingen viten om innbyrdes relasjon.<br><br>Nåværende ⊚<br>Forventet ⑨ | 2-Noe anerkjennelse av innbyrdes relasjon.<br><br>Nåværend<br>Forventet | 3-Begrenset anerkjennelse av innbyrdes relasjon.<br><br>Nåværende<br>Forventet | 4-Anerkjennelse av innbyrdes relasjon.<br><br>Nåværende<br>Forventet | 5-Fullstendig samordning mellom eiendomsforvaltningen og FM.<br>Nåværende<br><br>Forventet |

| 1.4 Felles fordel | | | | |
|---|---|---|---|---|
| 1-Det er ingen elementer som fremmer felles fordeler.<br>Nåværende<br>Forventet | 2-Noe forståelse for felles fordel.<br><br>Nåværende<br>Forventet | 3-Eiendomsstrategier er ikke brukt proaktiv for å maksimere nytten.<br><br>Nåværende<br>Forventet | 4-Eiendoms og FM strategi er ikke brukt proaktiv for å maksimere nytten.<br>Nåværende<br>Forventet | 5-Strategien inneholder proaktive planer for å maksimere nytten av både eiendom og FM.<br><br>Nåværende<br>Forventet |

# 2. Standard og fremgangsmåte

*Kryss av for det meste aktuelle nivå med tanke på standarder og fremgangsmåter i din bedrift slik som det er i dag, og ett kryss for det nivået bedriften tror er et forventet nivå for organisasjonen.*

| 2.1 Tilstedeværelse og eierskap av standarder og fremgangsmåte *(Er det opprettet standarder og fremgangsmåter, og hvordan er eierforholdet)* | | | | |
|---|---|---|---|---|
| 1-Standarder og fremgangsmåter er ikke opprettet. Forskrifter følger kontrakten.<br><br>Nåværende ⊚<br>Forventet | 2-Standarder og fremgangsmåter eksisterer delvis. Det er ikke eiet.<br><br>Nåværende ⊚<br>Forventet | 3-Skrevne standarder og fremgangsmåte.<br><br>Nåværende ⊚<br>Forventet | 4-Eiet og skrevne standarder og fremgangsmåter. Eierskapet står for handlingsplaner.<br><br><br><br>Nåværende Forventet | 5-Fullstendig eiet og skrevne standarder og fremgangsmåter. Disse er kontinuerlig forbedret.<br><br>Nåværende<br>Forventet ⑨ |

| 2 Integrering av standarder og fremgangsmåter i virksomheten *(Hvordan er disse integrert i både drifts- og finansielle prosesser?)* | | | | |
|---|---|---|---|---|
| 1-Ingen<br><br>Nåværende ⊚ Forventet | 2-På driftsnivå er disse brukt noe. På det strategiske nivå er det tvetydighet og liten tiltro til bruk av standarder og | 3-Standarder og fremgangsmåter er ikke forstått på driftssiden. Lite kommunikasjon mellom ledere og leverandører om standarder og fremgangsmåter.<br><br>Nåværende<br>Forventet | 4-Ledere, operatører og leverandører forstår standardene og fremgangsmåtene. Er delvis integrert i den | 5-Standarder og fremgangsmåter ivaretar den interne og eksterne kundes behov. Kontinuerlig feedback fra brukere fører til forbedringer og nyskapning. De er også fullstendig integrert i den finansielle prosessen.<br><br>Nåværende ⊚<br>Forventet |

| | | | |
|---|---|---|---|
| fremgangsmåte | | finansielle prosessen | |
| Nåværende  Forventet ⑨ | | Nåværende  Forventet ⑨ | |

## 3 .Planlegging og budsjettering

*Kryss av for det som beskriver deres bedrift best for å fastsette planlegging og budsjettering som er aktuelt nå og deretter det som er forventet av din organisasjon i fremtiden.*

**3.1 Innbyrdes relasjon mellom økonomiske prosesser til standarder og fremgangsmåte**. *(Hvordan er økonomiske prosesser utført med referanser til standarder og fremgangsmåte)*

| 1-Økonomiske mål er kontrollert, men ikke videreformidlet. | 2-Begrenset med foretningsplaner eksisterer, men ikke videreformidlet eller lagt frem av senior sjef. | 3-Omsluttet noen standarder og fremgangsmåter tilleggsplanlegging og budsjettert informasjon er delvis basert på ytelses mål. | 4-Omsluttet noen standarder og fremgangsmåter. Tilleggsplanlegging og budsjettert informasjon er delvis basert på ytelses mål. Planlegging og budsjettering er videreformidlet og tatt i bruk gjennom en struktur av prosesser | 5-Styrker felles mål, fører til fullstendig strategisk fremgangsmåte, prosesser er forstått og dokumentert og enhetlig anvendt. |
|---|---|---|---|---|
| Nåværende ⑨ Forventet  ⑨ | Nåværende Forventet    ⑨ | Nåværende ⑨ Forventet     ⑨ | Nåværende ⑨ Forventet    ⑨ | Nåværende ⑨ Forventet    ⑨ |

**3.2 Budsjettmessig styring** *(Hva er sammenhenget mellom økonomisk foretningsplanlegging og eiendomskostnader?)*

| 1-Ingen sammenheng | 2-Uklar sammenheng mellom FM og eiendomskostnader | 3-Noen elementer av eiendomskostnadene= (accommodation) er ikke identifiserbare | 4-Klar og gjenkjennbar sammenheng mellom eiendoms og FM kostnader | 5-Klart eierskap. Eiendom og FM kostnader er klart forstått. Forretning og eiendomsplaner er koordinert. Forbedringsplaner eksisterer for å bedre kunne utnytte eiendomskostnaden |
|---|---|---|---|---|
| Nåværende ⑨ Forventet    ⑨ | Nåværende ⑨ Forventet    ⑨ | Nåværende ⑨ Forventet    ⑨ | Nåværende ⑨ Forventet    ⑨ | Nåværende ⑨ Forventet    ⑨ |

**3.3 Brukerens ansvar i forhold til arealbruk?***(Hvilken kontroll har brukeren på arealbruk?)*

| 1-Intet ansvar | 2-Brukeren er ikke klar over kostnadene tilknyttet bruken av rom/plass. Det er ikke satt i gang noen prosess for å involvere organisasjonen i FM foretningsplanlegging. | 3-Brukeren har noe forståelse for kostnadene som er tilknyttet bruken av rom/plass. Det er ingen kontinuerlig prosess for å involvere brukeren i FM forretningsplanleggingen. Definering av arealbruk er heller reaktiv (etter | 4-Kommunikasjon med brukerne for å gi dem forståelse for fremtidige forretningsplaner/ forandringer (vekst overtagelse/nyanskaffelse, reduksjon etc). Pågående prosess for å involvere brukeren. Kommunikasjonen | 5-Organisasjonen deler proaktivt sine forretningsplaner med FM – systematisk prosess for å involvere brukeren i planlegging og budsjettering av rom/plass. Sstrategiske avgjørelser i forhold til rom/plass er basert på framtidig forretningsplaner.Kontinuerlig kommunikasjon med |
|---|---|---|---|---|

| | | snar) enn proaktiv (føre var) | muliggjør proaktiv definering av arealbruk, bedre planlegging og budsjettering | brukerne fører til en mer effektiv bruk av rom/plass |
|---|---|---|---|---|
| | | | | Nåværende ⑨ Forventet ⑨ |
| Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | |

| Kommentar: |
|---|

## 4. Tjeneste anskaffelser/tilgang på tjenester (service provision).

*Kryss av for det som beskriver deres bedrift best for å fastsette tjenesteanskaffelser som er aktuelt nå deretter kryss av for det mest forventet av din organisasjon i framtiden)*

| **4.1 Eiendomsforvaltning og FM tjenester** *(Hvordan anskaffer FM avdelingen eiendomsforvaltning og FM tjenester?)* | | | | |
|---|---|---|---|---|
| 1-Ved å gjennomføre/utføre tjenesteoppgaver | 2-Ved å overholde spesifikasjoner å prosedyrer. | 3-Ved å måle kundenes tilfredshet. | 4-Ved å analysere kundenes forventninger og forestillinger, og bygge bro over gapet via etablerte verktøy for å måle anskaffelse av tjenester | 5-Ved å ansette en hel tjeneste-kultur og måle kundens forventning til tjenester. Tjenestekulturen, ledelsen og operasjonell effektivitet måles for kontinuerlig forbedring |
| Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ |

| **4.2 Kontroll av tjenester** *(Hvordan blir tjenesteanskaffelser kontrollert?)* | | | | |
|---|---|---|---|---|
| 1-Ved linjeforvaltning | 2-Ved en sentral organisasjon som tar (forvaltningsansvar) ledelsesansvar fra linjeforvaltningen fra dag til dag | 3-Ved en sentral organisasjon som definerer tjenestestandarder og kontroll | 4-Ved en lokal ledelses komité i samarbeid med brukere og klienter | 5-Ved de ressursene som er dedisert/gitt for å forsterke tjenesteanskaffelsen gjennom prosess. Disse prosessene kommuniseres til klienter for kontinuerlig forbedring |
| Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ |

| **4.3 Anskaffelsesstrategier for FM og eiendomstjenester** *(Hvordan anskaffes FM tjenester?)* | | | | |
|---|---|---|---|---|
| 1-Ingen strategier | 2-Den lokale ledelsen kjøper tjenester, ingen anskaffelser/innkjøp sentralt | 3-Sentrale (anskaffelser)/innkjøp definerer hvilke tjenester som skal skaffes innad, og hvilke som skaffes utenfra | 4-Sentrale anskaffelser/innkjøp kommuniserer med lokal og sentral ekspertise/sakkyndighet. Klare kriterier for valg av leverandører | 5-Sentrale anskaffelser/innkjøp måler kontraktsforholdenes ytelser mot forretningens behov. Veldefinerte prosesser for å administrere leverandører. Innovasjon er en kritisk suksessfaktor for leverandører |
| Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ |

| **4.4 Eksterne samarbeidspartnere/selskap** *(Hvordan ledes samarbeidet med eksterne samarbeidspartnere/selskap)* | | | | |
|---|---|---|---|---|
| 1-Ingen ledelse | 2-Relasjoner med de som skaffer tjenester er styrt ut fra økonomiske vilkår/betingelser. Konkurranse kan eksistere mellom ulike selskaper som leverer ulike tjenester. | 3-Ikke bare økonomisk, men også lagerbeholdning og materiell kontroll er delt mellom leverandører. Noen synergier er skapt mellom leverandører | 4-Levering av tjenester er relatert til kundenes krav. Avgjørelser er basert på samarbeid mellom ulike leverandører. Begrenset indre og ytre referansepunkter/ benchmarking. | 5-Ulike selskaper tjener kundene med tydelige sammenføyde mål. Involvert i arbeidsgrupper og undersøkelser med konkurrenter/ andre selskaper for å plassere FM praksis i industrien og lære fra ulike erfaringer. FM praksis benchmarking |
| Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ | Nåværende ⑨ Forventet ⑨ |

## 5. Hensiktstilpasning

*Kryss av for det meste aktuelle nivå med tanke på standarder og fremgangsmåter i din bedrift slik som det er i dag, og ett kryss for det nivået bedriften tror er et forventet nivå for organisasjonen.*

| 5.1 Organisasjonsutvikling ( Finnes en organisasjonsutviklingsplan) | | | | |
|---|---|---|---|---|
| 1-Ingen | 2-Dag til dag anskaffelser av eiendom og FM-tjenester | 3-Et organisatorisk rammeverk som sikrer utvikling | 4-Et organisatorisk rammeverk som skaffer og integrerer eiendom og FM-tjenester. | 5-Et organisatorisk rammeverk er utviklet for å skaffe tjenester til laveste kostnad. Kjerne- og ikke kjerneaktiviteter er identifisert og overført til organisasjoner som er best egnet til disse. |
| Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ |

| 5.2 Etablering av strategi og tjenester | | | | |
|---|---|---|---|---|
| 1-Ingen | 2-Kommer underveis | 3-Noe, men fordeling av roller er uklar. | 4-Roller er tildelt men ikke fullstendig spesifisert. | 5-En klar inndeling av fremgangs- og anskaffelsesmåte av tjenester innenfor spesifikke standarder |
| Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ |

| 5.3 Hvilken verdi har FM for selskapet? | | | | |
|---|---|---|---|---|
| 1-Det finnes ingen prosesser for å måle dette. | 2-Noen målinger finnes, men ingen systematiske prosesser. | 3-Prosesser er dannet for å vise verdien av FM | 4-FM-mål linket opp mot foretaksmål og systematiske prosesser finnes for å måle verdien av FM for selskapet som driver med kjernevirksomheten | 5-FM-mål er linket opp mot kundens mål, og klare systematiske prosesser blir utført for å vise verdien av FM for selskapet. Det er klart vist at FM-prosessene er positivt for selskapet. FM-prosessene blir kontinuerlig forbedret. |
| Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ |

## 6. Performance Management and the Management Information System

*Kryss av for det meste aktuelle nivå med tanke på standarder og fremgangsmåter i din bedrift slik som det er i dag, og ett kryss for det nivået bedriften tror er et forventet nivå for organisasjonen.*

| 6.1 Database *(Blir informasjon angående bygninger og tjenester lagret i en database?)* | | | | |
|---|---|---|---|---|
| 1-Ingen database for FM, eiedom og tjenester | 2-Spredt, ikke lett tilgjengelig, ikke omfattende | 3-Tilgjengelig, men ligger spredt og er lite omfattende | 4-Tilgjengelig som bistand i forretningsplanleggingen, men ikke sentral database for eiendom og FM | 5-Omfattende sentral database for eiendom og FM |
| Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ |

| 6.2 Nytte av databasen *(Er informasjonen nyttig for å bistå og kontrollere ytelsene?)* | | | | |
|---|---|---|---|---|
| 1-Data har varierende nytteverdi. Kan ikke benyttes til å kontrollere tilbud og etterspørsel | 2-Noe nyttig data for å kontrollere tilbud og etterspørsel. Varierende tilbakemelding | 3-Data blir brukt for å kontrollere distribusjonsnettverket. Jevnlig tilbakemelding, og data blir forståelig lagret | 4-Omfattende database kontrollerer distribusjonsnettverket. Enkelt å ta ut og presentere data. Data blir jevnlig presentert for linjeledelsen. | 5-Databasen inneholder relevant informasjon til å bistå planlegging og budsjettering, muliggjør kontroll av tilbud og etterspørsel. Proaktive avgjørelser gjøres på grunnlag av databasen. |
| Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ | Nåværende ⑨<br>Forventet ⑨ |

| 6.3 Informasjon om kundetifredshet *(Hvordan behandler man tilbakemelding fra kunder?)* |
|---|

| | | | | |
|---|---|---|---|---|
| 1-Kundens tilfredshet er kun vurdert når det kommer inn klager. Ingen lagring av data.<br><br>Nåværende ⑨<br>Forventet ⑨ | 2-Tilbakemelding til kunder kun ved klager. Oversikt over kundetilfredshet finnes. Ikke linket til MIS og PM systems<br><br>Nåværende ⑨<br>Forventet ⑨ | 3-Kundetilfredshet er linket opp mot ytelsesresultater. KPI er på plass. Fremgangsmåte og prosedyrer er lagd rundt kundens behov<br><br>Nåværende ⑨<br>Forventet ⑨ | 4-Kundens tilfredshet er kontinuerlig overvåket for å møte individuelle behov. Eksplisitte ytelsesidikatorer. Ansatte er trenet for kundetilfredshet.<br><br>Nåværende ⑨<br>Forventet ⑨ | 5-Kontinuerlige kundeforpliktelser blir delt ut på alle nivåer. Tjenestene som blir levert til kundene blir sett på som en uatskillelig del av bildet. Kunden liker erfaringen med FM, og er klar over FM`s bidrag til deres individuelle ytelser<br><br>Nåværende ⑨<br>Forventet ⑨ |

**6.4 Informasjon om miljøbestemte temaer** *(Hvordan blir sosial- og miljøspørsmål behandlet?)*

| | | | | |
|---|---|---|---|---|
| 1-Ingen<br><br><br><br><br><br>Nåværende ⑨<br>Forventet ⑨ | 2-Lite informasjon tilgjengelig. Blir sett på som kostbare og en hindring for konkurranseevnen.<br><br><br>Nåværende ⑨<br>Forventet ⑨ | 3-Miljø- og sosialkrav blir delvis lagret i MIS for å overholde lover og regler. Fremgangsmåte og standarder er nedskrevet<br><br>Nåværende ⑨<br>Forventet ⑨ | 4-Full integrering av miljø- og sosialansvar i MIS Blir sett på som et strategisk tema som også topplederne er opptatt av.<br><br>Nåværende ⑨<br>Forventet ⑨ | 5-Ansatte blir oppmuntret til å engasjere seg i lokale aktiviteter. Miljøansvar er høyt prioritert. Lokale aktiviteter er støttet. Organisasjonen har mottatt formell anerkjennelse for sine miljøytelser.<br><br>Nåværende ⑨<br>Forventet ⑨ |

Kommentar:

## 7. Personal utvikling (FM)

**7.1 Læring for oppnåelse av kunnskap og kompetanse** *(Hvordan blir FM drevet og utviklet for å gi kunnskap og for å oppnå fullt potensialet for sine ansatte?)*

| | | | | |
|---|---|---|---|---|
| 1-Introduksjon (innføring) er gitt<br><br><br><br><br><br><br>Nåværende ⑨<br>Forventet | 2-Læring blir sett på som bortkastet tid og utgift. Mennesker er ansatt for å gjøre en jobb<br><br><br>Nåværende ⑨<br>Forventet ⑨ | 3-Ledelsen erkjenner verdien av læring, men personalets kunnskap og kompetanse er ikke identifisert. Det er gitt en viss tilpassing til organisasjonens mål gjennom vurderingsskjema<br><br>Nåværende ⑨<br>Forventet ⑨ | 4-Vurderingsskjemaene som er i bruk viser en viss samhørighet mellom de ansattes mål og organisasjonens mål. Personlig utvikling er planlagt og tatt høyde for i vurderingsskjemaene.<br><br>Nåværende ⑨<br>Forventet ⑨ | 5-Kontinuerlig personlig utvikling og tilpassing til organisasjonens mål. Personalet er inneforstått med at jobben tilbyr det som er best for deres karriere utvikling.<br><br><br>Nåværende ⑨<br>Forventet ⑨ |

**7.2 Engasjement og myndighet** *(Finnes det prosesser i gang som tilpasser de ansattes karriere mål og selskapets mål?)*

| | | | | |
|---|---|---|---|---|
| 1-Personalet er ikke konferert med. Kommunikasjonen er enveis og "top-down" (fra ledelsen og ned). Det eksisterer en planlegging, og folk er konforme til sin spesifikke arbeidsoppgave.<br><br>Nåværende<br>Forventet | 2-Personene er rådgivende for spesiele formål. Teamarbeid blir kontrollert. Personene må holde seg til eksisterende spesifikasjoner og prosedyrer.<br><br><br>Nåværende ⑨<br>Forventet ⑨ | 3-To veis kommunikasjon oppnås. Personalet rådføres om forbedringer.<br><br><br>Nåværende ⑨<br>Forventet ⑨ | 4-Personalet har tillatelse til å implementere forbedringer aktivt uten å referere med ledelsen. Deres kompetanse og kunnskap verdsettes og brukes, og dette fører til forbedringer.<br><br>Nåværende ⑨<br>Forventet ⑨ | 5-Ansatte er rådført angående organisasjonens nivå for felles mål. De blir priset og tatt var på. To veis kommunikasjon sees som en norm. De ansattes moral er høy og lojalitet oppnås. Personal fornying måles til å være lav<br><br>Nåværende ⑨<br>Forventet ⑨ |

Overview of the Universities and University colleges

**Universiteter og høyskoler**
Norge har i dag 8 universiteter, 12 høyskoler og 5 vitenskapelige høyskoler med statlig eierskap. Dette er en felles oversikt over disse. Norge har også en rekke private høyere utdanningsinstitusjoner, og 17 av dem mottar statlig tilskudd.

| Universiteter | Vitenskapelige høyskoler | Høgskolen i Bergen (HIB) |
|---|---|---|
| | | Pb. 7030, 5020 Bergen |
| **Norges teknisk-naturvitenskapelige** | **Arkitektur- og designhøgskolen i Oslo** | Bergen University College |
| **universitet (NTNU)** | **(AHO)** | Tlf: 55 58 75 00 http://www.hib.no |
| Universitetsadm., 7491 Trondheim | Pb. 6768 St.Olavs.pl., 0130 Oslo | |
| Norwegian University of Science and | The Oslo School of Architecture and | **Høgskolen i Sørøst-Norge (USN)** |
| Technology | Design | Pb. 235, 3603 Kongsberg |
| Tlf: 73 59 80 00 http://www.ntnu.no | Tlf: 22 99 70 00 http://www.aho.no | University College of Southeast Norway |
| | | Tlf: 31 00 80 00 www.usn.no |
| **Norges miljø- og biovitenskapelige** | **Norges Handelshøyskole (NHH)** | |
| **universitet (NMBU)** | Helleveien 30, 5045 Bergen | **Høgskolen i Hedmark (HIHM)** |
| Pb. 5003, 1432 Ås | Norwegian School of Economics and | 2400 Elverum |
| Norwegian University of Life Sciences | Business Administration | Hedmark University College |
| Tlf: 64 96 50 00 http://www.nmbu.no | Tlf: 55 95 90 00 http://www.nhh.no | Tlf: 62 43 00 00 http://www.hihm.no |
| | | |
| **Universitetet i Bergen (UIB)** | **Norges idrettshøgskole (NIH)** | **Høgskolen i Lillehammer (HIL)** |
| Pb. 7800, 5020 Bergen | Pb. 4014 Ullevål Stadion, 0806 Oslo | 2626 Lillehammer |
| University of Bergen | Norwegian School of Sport Sciences | Lillehammer University College |
| Tlf: 55 58 00 00 http://www.uib.no | Tlf: 23 26 20 00 http://www.nih.no/ | Tlf: 61 28 80 00 http://www.hil.no |
| | | |
| **Universitetet i Oslo (UIO)** | **Norges musikkhøgskole (MNH)** | **Høgskolen i Oslo og Akershus (HIOA)** |
| Pb. 1072 Blindern, 0316 Oslo | Pb. 5190 Majorstua, 0302 Oslo | Postboks 4, St. Olavs plass |
| University of Oslo | Norwegian State Academy of Music | 0130 Oslo. |
| Tlf: 22 85 50 50 http://www.uio.no | Tlf: 23 36 70 00 http://www.nmh.no | Oslo and Akershus university college of |
| **Universitetet i Stavanger (UIS)** | | applied sciences |
| 4036 Stavanger | **Høgskolen i Molde -** Vitenskapelig | Tlf: 67 23 50 00 http://www.hioa.no |
| University of Stavanger | høgskole i logistikk **(HIMOLDE)** | |
| Tlf. 51 83 10 00 http://www.uis.no | Pb. 2110, 6402 Molde | **Høgskolen i Sogn og Fjordane (HISF)** |
| **Universitetet i Tromsø Norges** | Molde University College – Specialized | Pb. 133, 6851 Sogndal |
| **arktiske universitet (UIT)** | University in Logistics | Sogn og Fjordane University College |
| 9019 Tromsø | Tlf: 71 21 40 00 http://www.himolde.no | Tlf: 57 67 60 00 http://www.hisf.no |
| University of Tromsø The Arctic | | |
| University of Norway | **Statlige høyskoler** | **Høgskolen Stord/Haugesund (HSH)** |
| Tlf: 77 64 40 00 http://www.uit.no | | Pb. 5000, 5409 Stord |
| | **Samisk høgskole (SAMISKH)** | Stord/Haugesund University College |
| **Universitetet i Agder (UIA)** | Pb. 45, 9520 Kautokeino | Tlf: 53 49 13 00 http://www.hsh.no |
| Pb. 422, 4604 Kristiansand | Saami University College | |
| University of Agder | Tlf: 78 48 77 00 http://www.samiskhs.no | **Høgskolen i Volda (HIVOLDA)** |
| Tlf: 38 14 10 00 http://www.uia.no | | Pb. 500, 6101 Volda |
| | **Kunst- og designhøgskolen i Bergen** | Volda University College |
| **Nord universitet (UIN)** | **(KHIB)** | Tlf: 70 07 51 00 http://www.hivolda.no |
| 8049 Bodø | Strømgt. 1, 5015 Bergen | |
| Nord University | Bergen Academy of Art and Design | **Høgskolen i Østfold (HIOF)** |
| Tlf: 75 51 70 00 http://www.nord.no/no | Tlf: 55 58 73 00 http://www.khib.no | 1757 Halden |
| | | Østfold University College |
| | **Kunsthøgskolen i Oslo (KHIO)** | Tlf: 69 21 50 00 http://www.hiof.no |
| | Pb. 6853 St. Olavspl, 0130 Oslo | |
| | Oslo National Academy of the Arts | |
| | Tlf: 22 99 55 00 http://www.khio.no | |

## Strategy

**Statistics**

|  |  | Strategy | Corporate objectives (Present) | Strategy (Present) | Interrelationship between property an FM (Present) | Corporate benefits (Present) | Corporate objectives (Expected) | Strategy (Expected) | Interrelationship between proprety an FM (Expected) | Corporate benefits (Expected) |
|---|---|---|---|---|---|---|---|---|---|---|
| N | Valid | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
|  | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean |  |  | 3,82 | 3,27 | 3,55 | 4,09 | 4,45 | 4,00 | 4,18 | 4,64 |
| Median |  |  | 4,00 | 4,00 | 4,00 | 4,00 | 4,00 | 4,00 | 5,00 | 5,00 |
| Std. Deviation |  |  | ,751 | 1,489 | 1,440 | ,831 | ,522 | 1,483 | 1,471 | ,505 |
| Variance |  |  | ,564 | 2,218 | 2,073 | ,691 | ,273 | 2,200 | 2,164 | ,255 |
| Range |  |  | 3 | 5 | 5 | 2 | 1 | 5 | 5 | 1 |
| Minimum |  |  | 2 | 0 | 0 | 3 | 4 | 0 | 0 | 4 |
| Maximum |  |  | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

**Correlations**

|  |  | Corporate objectives (Present) | Strategy (Present) | Interrelationship between proprety an FM (Present) | Corporate benefits (Present) | Corporate objectives (Expected) | Strategy (Expected) | Interrelationship between proprety an FM (Expected) | Corporate benefits (Expected) |
|---|---|---|---|---|---|---|---|---|---|
| Corporate objectives (Present) | Pearson Correlation | 1 | ,407 | ,841** | ,350 | ,232 | ,000 | ,757** | ,336 |
|  | Sig. (2-tailed) |  | ,215 | ,001 | ,292 | ,493 | 1,000 | ,007 | ,312 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Strategy (Present) | Pearson Correlation | ,407 | 1 | ,483 | ,220 | ,339 | ,815** | ,340 | ,411 |
|  | Sig. (2-tailed) | ,215 |  | ,132 | ,515 | ,308 | ,002 | ,306 | ,209 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Interrelationship between proprety an FM (Present) | Pearson Correlation | ,841** | ,483 | 1 | ,539 | ,036 | ,140 | ,846** | ,438 |
|  | Sig. (2-tailed) | ,001 | ,132 |  | ,087 | ,916 | ,680 | ,001 | ,178 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Corporate benefits (Present) | Pearson Correlation | ,350 | ,220 | ,539 | 1 | -,335 | ,000 | ,149 | ,087 |
|  | Sig. (2-tailed) | ,292 | ,515 | ,087 |  | ,314 | 1,000 | ,663 | ,800 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Corporate objectives (Expected) | Pearson Correlation | ,232 | ,339 | ,036 | -,335 | 1 | ,516 | ,402 | ,690* |
|  | Sig. (2-tailed) | ,493 | ,308 | ,916 | ,314 |  | ,104 | ,220 | ,019 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Strategy (Expected) | Pearson Correlation | ,000 | ,815** | ,140 | ,000 | ,516 | 1 | ,183 | ,535 |
|  | Sig. (2-tailed) | 1,000 | ,002 | ,680 | 1,000 | ,104 |  | ,589 | ,090 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Interrelationship between proprety an FM (Expected) | Pearson Correlation | ,757** | ,340 | ,846** | ,149 | ,402 | ,183 | 1 | ,637* |
|  | Sig. (2-tailed) | ,007 | ,306 | ,001 | ,663 | ,220 | ,589 |  | ,035 |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Corporate benefits (Expected) | Pearson Correlation | ,336 | ,411 | ,438 | ,087 | ,690* | ,535 | ,637* | 1 |
|  | Sig. (2-tailed) | ,312 | ,209 | ,178 | ,800 | ,019 | ,090 | ,035 |  |
|  | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

## 2.Standards and policies

**Statistics**

| | | Standards and policies | Presence and ownership of standards and policies (Present) | Integration of policies and standards at all levels (Present) | Presence and ownership of standards and policies (Expected) | Integration of policies and standards at all levels (Expected) |
|---|---|---|---|---|---|---|
| N | Valid | 11 | 11 | 11 | 11 | 11 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | | 3,00 | 2,82 | 3,82 | 3,55 |
| Median | | | 3,00 | 3,00 | 4,00 | 4,00 |
| Std. Deviation | | | ,894 | 1,601 | 1,079 | 1,864 |
| Variance | | | ,800 | 2,564 | 1,164 | 3,473 |
| Range | | | 2 | 5 | 3 | 5 |
| Minimum | | | 2 | 0 | 2 | 0 |
| Maximum | | | 4 | 5 | 5 | 5 |

**Planning and budgeting**

**Correlations**

| | | Presence and ownership of standards and policies (Present) | Integration of policies and standards at all levels (Present) | Presence and ownership of standards and policies (Expected) | Integration of policies and standards at all levels (Expected) |
|---|---|---|---|---|---|
| Presence and ownership of standards and policies (Present) | Pearson Correlation | 1 | ,209 | ,518 | ,000 |
| | Sig. (2-tailed) | | ,536 | ,102 | 1,000 |
| | N | 11 | 11 | 11 | 11 |
| Integration of policies and standards at all levels (Present) | Pearson Correlation | ,209 | 1 | ,442 | ,874** |
| | Sig. (2-tailed) | ,536 | | ,173 | ,000 |
| | N | 11 | 11 | 11 | 11 |
| Presence and ownership of standards and policies (Expected) | Pearson Correlation | ,518 | ,442 | 1 | ,402 |
| | Sig. (2-tailed) | ,102 | ,173 | | ,220 |
| | N | 11 | 11 | 11 | 11 |
| Integration of policies and standards at all levels (Expected) | Pearson Correlation | ,000 | ,874** | ,402 | 1 |
| | Sig. (2-tailed) | 1,000 | ,000 | ,220 | |
| | N | 11 | 11 | 11 | 11 |

**. Correlation is significant at the 0.01 level (2-tailed).

**Statistics**

| | | Planning and budgeting | The interrelationship of financial process to standards and policies(Present) | Budgetary regime (Present) | User`s responsability on space drivers (Present) | The interrelationship of financial process to standards and policies(Expected) | Budgetary regime (Expected) | User`s responsability on space drivers (Expected) |
|---|---|---|---|---|---|---|---|---|
| N | Valid | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | | | 3,18 | 3,09 | 3,82 | 3,64 | 3,91 | 4,55 |
| Median | | | 3,00 | 4,00 | 4,00 | 5,00 | 5,00 | 5,00 |
| Std. Deviation | | | 1,328 | 1,814 | ,751 | 2,014 | 1,973 | ,688 |
| Variance | | | 1,764 | 3,291 | ,564 | 4,055 | 3,891 | ,473 |
| Range | | | 4 | 5 | 2 | 5 | 5 | 2 |
| Minimum | | | 1 | 0 | 3 | 0 | 0 | 3 |
| Maximum | | | 5 | 5 | 5 | 5 | 5 | 5 |

**Correlations**

| | | The interrelationship of financial process to standards and policies(Present) | Budgetary regime (Present) | User`s responsability on space drivers (Present) | The interrelationship of financial process to standards and policies(Expected) | Budgetary regime (Expected) | User`s responsability on space drivers (Expected) |
|---|---|---|---|---|---|---|---|
| The interrelationship of financial process to standards and policies(Present) | Pearson Correlation | 1 | ,574 | ,237 | ,738** | ,580 | -,010 |
| | Sig. (2-tailed) | | ,065 | ,483 | ,010 | ,062 | ,977 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Budgetary regime (Present) | Pearson Correlation | ,574 | 1 | ,160 | ,503 | ,869** | ,117 |
| | Sig. (2-tailed) | ,065 | | ,638 | ,115 | ,001 | ,733 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| User`s responsability on space drivers (Present) | Pearson Correlation | ,237 | ,160 | 1 | -,048 | -,080 | ,405 |
| | Sig. (2-tailed) | ,483 | ,638 | | ,888 | ,816 | ,217 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| The interrelationship of financial process to standards and policies(Expected) | Pearson Correlation | ,738** | ,503 | -,048 | 1 | ,620* | -,059 |
| | Sig. (2-tailed) | ,010 | ,115 | ,888 | | ,042 | ,863 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Budgetary regime (Expected) | Pearson Correlation | ,580 | ,869** | -,080 | ,620* | 1 | ,114 |
| | Sig. (2-tailed) | ,062 | ,001 | ,816 | ,042 | | ,739 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| User`s responsability on space drivers (Expected) | Pearson Correlation | -,010 | ,117 | ,405 | -,059 | ,114 | 1 |
| | Sig. (2-tailed) | ,977 | ,733 | ,217 | ,863 | ,739 | |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

1. Service provision

**Statistics**

| | | Service Provision | Management of property and FM services (Present) | Controlling of services (Present) | Procurement strategy for FM and proprety services (Present) | External partnerships (Present) | Management of property and FM services (Expected) | Controlling of services (Expected) | Procurement strategy for FM and proprety services (expected) | External partnerships (Expected) |
|---|---|---|---|---|---|---|---|---|---|---|
| N | Valid | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | | | 1,64 | 2,00 | 2,18 | 1,91 | 2,18 | 2,18 | 2,45 | 2,55 |
| Median | | | 1,00 | 2,00 | 2,00 | 2,00 | 1,00 | 1,00 | 3,00 | 4,00 |
| Std. Deviation | | | 1,206 | 1,265 | 1,722 | 1,446 | 1,834 | 1,888 | 2,115 | 2,162 |
| Variance | | | 1,455 | 1,600 | 2,964 | 2,091 | 3,364 | 3,564 | 4,473 | 4,673 |
| Range | | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |
| Minimum | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum | | | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |

**Correlations**

| | | Management of property and FM services (Present) | Controlling of services (Present) | Procurement strategy for FM and proprety services (Present) | External partnerships (Present) | Management of property and FM services (Expected) | Controlling of services (Expected) | Procurement strategy for FM and proprety services (expected) | External partnerships (Expected) |
|---|---|---|---|---|---|---|---|---|---|
| Management of property and FM services (Present) | Pearson Correlation | 1 | ,328 | -,254 | ,266 | ,304 | ,164 | -,125 | ,237 |
| | Sig. (2-tailed) | | ,325 | ,451 | ,429 | ,363 | ,631 | ,715 | ,483 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Controlling of services (Present) | Pearson Correlation | ,328 | 1 | ,092 | ,711* | ,690* | ,503 | ,187 | ,878** |
| | Sig. (2-tailed) | ,325 | | ,788 | ,014 | ,019 | ,115 | ,582 | ,000 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Procurement strategy for FM and propret services (Present) | Pearson Correlation | -,254 | ,092 | 1 | -,153 | ,115 | ,543 | ,936** | ,186 |
| | Sig. (2-tailed) | ,451 | ,788 | | ,653 | ,736 | ,085 | ,000 | ,585 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| External partnerships (Present) | Pearson Correlation | ,266 | ,711* | -,153 | 1 | ,233 | ,410 | ,048 | ,753** |
| | Sig. (2-tailed) | ,429 | ,014 | ,653 | | ,490 | ,211 | ,890 | ,007 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Management of property and FM services (Expected) | Pearson Correlation | ,304 | ,690* | ,115 | ,233 | 1 | ,394 | ,131 | ,553 |
| | Sig. (2-tailed) | ,363 | ,019 | ,736 | ,490 | | ,231 | ,700 | ,078 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Controlling of services (Expected) | Pearson Correlation | ,164 | ,503 | ,543 | ,410 | ,394 | 1 | ,704* | ,757** |
| | Sig. (2-tailed) | ,631 | ,115 | ,085 | ,211 | ,231 | | ,016 | ,007 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Procurement strategy for FM and propret services (expected) | Pearson Correlation | -,125 | ,187 | ,936** | ,048 | ,131 | ,704* | 1 | ,378 |
| | Sig. (2-tailed) | ,715 | ,582 | ,000 | ,890 | ,700 | ,016 | | ,252 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| External partnerships (Expected) | Pearson Correlation | ,237 | ,878** | ,186 | ,753** | ,553 | ,757** | ,378 | 1 |
| | Sig. (2-tailed) | ,483 | ,000 | ,585 | ,007 | ,078 | ,007 | ,252 | |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

## 2. Organisation fit-for purpose

| | Organisation fit-for purpose | Organisational development (Present) | Provision of trategy and services (Present) | Demonstrating the value to the business (Present) | Organisational development (Expected) | Provision of trategy and services (Expected) | Demonstrating the value to the business (Expected) |
|---|---|---|---|---|---|---|---|
| N Valid | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | | 2,55 | 2,18 | 2,18 | 3,00 | 2,55 | 2,73 |
| Median | | 3,00 | 2,00 | 2,00 | 4,00 | 4,00 | 3,00 |
| Std. Deviation | | 1,508 | 1,991 | 1,168 | 2,049 | 2,464 | 1,902 |
| Variance | | 2,273 | 3,964 | 1,364 | 4,200 | 6,073 | 3,618 |
| Range | | 5 | 5 | 4 | 5 | 5 | 5 |
| Minimum | | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum | | 5 | 5 | 4 | 5 | 5 | 5 |

**Correlations**

| | | Organisational development (Present) | Provision of trategy and services (Present) | Demonstrating the value to the business (Present) | Organisational development (Expected) | Provision of trategy and services (Expected) | Demonstrating the value to the business (Expected) |
|---|---|---|---|---|---|---|---|
| Organisational development (Present) | Pearson Correlation | 1 | ,597 | ,847** | ,777** | ,504 | ,720* |
| | Sig. (2-tailed) | | ,053 | ,001 | ,005 | ,114 | ,013 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Provision of trategy and services (Present) | Pearson Correlation | ,597 | 1 | ,630* | ,564 | ,875** | ,463 |
| | Sig. (2-tailed) | ,053 | | ,038 | ,071 | ,000 | ,151 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Demonstrating the value to the business (Present) | Pearson Correlation | ,847** | ,630* | 1 | ,752** | ,622* | ,655* |
| | Sig. (2-tailed) | ,001 | ,038 | | ,008 | ,041 | ,029 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Organisational development (Expected) | Pearson Correlation | ,777** | ,564 | ,752** | 1 | ,772** | ,975** |
| | Sig. (2-tailed) | ,005 | ,071 | ,008 | | ,005 | ,000 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Provision of trategy and services (Expected) | Pearson Correlation | ,504 | ,875** | ,622* | ,772** | 1 | ,696* |
| | Sig. (2-tailed) | ,114 | ,000 | ,041 | ,005 | | ,017 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |
| Demonstrating the value to the business (Expected) | Pearson Correlation | ,720* | ,463 | ,655* | ,975** | ,696* | 1 |
| | Sig. (2-tailed) | ,013 | ,151 | ,029 | ,000 | ,017 | |
| | N | 11 | 11 | 11 | 11 | 11 | 11 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

## 3. Performance management (PM) and the management information system (MIS)

**Statistics**

| | | Performance Management (PM) | Database (Present) | Utilisation of Database (Present) | Customer Results (Present) | Society Results (Present) | Database (Expected) | Utilisation of Database (Expected) | Customer Results (Expected) | Society Results (Expected) |
|---|---|---|---|---|---|---|---|---|---|---|
| N | Valid | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mean | | | 2,64 | 1,45 | 2,45 | 2,55 | 3,64 | 3,27 | 3,27 | 2,91 |
| Median | | | 2,00 | 1,00 | 3,00 | 3,00 | 4,00 | 4,00 | 4,00 | 4,00 |
| Std. Deviation | | | 2,014 | 1,695 | 1,572 | 1,916 | 1,859 | 2,195 | 1,849 | 1,973 |
| Variance | | | 4,055 | 2,873 | 2,473 | 3,673 | 3,455 | 4,818 | 3,418 | 3,891 |
| Range | | | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 |
| Minimum | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum | | | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 |

**Correlations**

| | | Database (Present) | Utilisation of Database (Present) | Customer Results (Present) | Society Results (Present) | Database (Expected) | Utilisation of Database (Expected) | Customer Results (Expected) | Society Results (Expected) |
|---|---|---|---|---|---|---|---|---|---|
| Database (Present) | Pearson Correlation | 1 | ,522 | ,594 | ,316 | ,736** | ,364 | ,593 | ,243 |
| | Sig. (2-tailed) | | ,099 | ,054 | ,344 | ,010 | ,271 | ,054 | ,472 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Utilisation of Database (Present) | Pearson Correlation | ,522 | 1 | ,252 | ,347 | ,439 | ,501 | ,308 | ,402 |
| | Sig. (2-tailed) | ,099 | | ,454 | ,296 | ,177 | ,117 | ,358 | ,220 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Customer Results (Present) | Pearson Correlation | ,594 | ,252 | 1 | ,540 | ,712* | ,424 | ,710* | ,337 |
| | Sig. (2-tailed) | ,054 | ,454 | | ,086 | ,014 | ,194 | ,014 | ,311 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Society Results (Present) | Pearson Correlation | ,316 | ,347 | ,540 | 1 | ,539 | ,769** | ,547 | ,808** |
| | Sig. (2-tailed) | ,344 | ,296 | ,086 | | ,087 | ,006 | ,082 | ,003 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Database (Expected) | Pearson Correlation | ,736** | ,439 | ,712* | ,539 | 1 | ,689* | ,876** | ,672* |
| | Sig. (2-tailed) | ,010 | ,177 | ,014 | ,087 | | ,019 | ,000 | ,024 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Utilisation of Database (Expected) | Pearson Correlation | ,364 | ,501 | ,424 | ,769** | ,689* | 1 | ,694* | ,907** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Sig. (2-tailed) | ,271 | ,117 | ,194 | ,006 | ,019 | | ,018 | ,000 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Customer Results (Expected) | Pearson Correlation | ,593 | ,308 | ,710* | ,547 | ,876** | ,694* | 1 | ,720* |
| | Sig. (2-tailed) | ,054 | ,358 | ,014 | ,082 | ,000 | ,018 | | ,012 |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Society Results (Expected) | Pearson Correlation | ,243 | ,402 | ,337 | ,808** | ,672* | ,907** | ,720* | 1 |
| | Sig. (2-tailed) | ,472 | ,220 | ,311 | ,003 | ,024 | ,000 | ,012 | |
| | N | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4. Personnel development

**Statistics**

| | | Personnel development | Training for gaining knowledge and skills (Present) | Engagement and empowerment (Present) | Training for gaining knowledge and skills (Expected) | Engagement and empowerment (Expected) |
|---|---|---|---|---|---|---|
| N | Valid | 11 | 11 | 11 | 11 | 11 |
| | Missing | 0 | 0 | 0 | 0 | 0 |
| Mean | | | 3,09 | 3,36 | 3,73 | 3,55 |
| Median | | | 3,00 | 3,00 | 5,00 | 4,00 |
| Std. Deviation | | | 1,758 | 1,362 | 1,954 | 1,440 |
| Variance | | | 3,091 | 1,855 | 3,818 | 2,073 |
| Range | | | 5 | 5 | 5 | 5 |
| Minimum | | | 0 | 0 | 0 | 0 |
| Maximum | | | 5 | 5 | 5 | 5 |

**Correlations**

| | | Training for gaining knowledge and skills (Present) | Engagement and empowerment (Present) | Training for gaining knowledge and skills (Expected) | Engagement and empowerment (Expected) |
|---|---|---|---|---|---|
| Training for gaining knowledge and skills (Present) | Pearson Correlation | 1 | ,570 | ,881** | ,532 |
| | Sig. (2-tailed) | | ,067 | ,000 | ,092 |
| | N | 11 | 11 | 11 | 11 |
| Engagement and empowerment (Present) | Pearson Correlation | ,570 | 1 | ,492 | ,909** |
| | Sig. (2-tailed) | ,067 | | ,124 | ,000 |
| | N | 11 | 11 | 11 | 11 |
| Training for gaining knowledge and skills (Expected) | Pearson Correlation | ,881** | ,492 | 1 | ,556 |
| | Sig. (2-tailed) | ,000 | ,124 | | ,076 |
| | N | 11 | 11 | 11 | 11 |
| Engagement and empowerment (Expected) | Pearson Correlation | ,532 | ,909** | ,556 | 1 |
| | Sig. (2-tailed) | ,092 | ,000 | ,076 | |
| | N | 11 | 11 | 11 | 11 |

**. Correlation is significant at the 0.01 level (2-tailed).

# Frequencies

# Frequency Table

**Strategy**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Institution 4 | 1 | 9,1 | 9,1 | 9,1 |
| | Institution 5 | 1 | 9,1 | 9,1 | 18,2 |

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| | Institution 8 | 1 | 9,1 | 9,1 | 27,3 |
| | Instiution 3 | 1 | 9,1 | 9,1 | 36,4 |
| | Institution 11 | 1 | 9,1 | 9,1 | 45,5 |
| | Institution 2 | 1 | 9,1 | 9,1 | 54,5 |
| | Institution 9 | 1 | 9,1 | 9,1 | 63,6 |
| | Institution 6 | 1 | 9,1 | 9,1 | 72,7 |
| | Institution 1 | 1 | 9,1 | 9,1 | 81,8 |
| | Institution 10 | 1 | 9,1 | 9,1 | 90,9 |
| | Institution 7 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Corporate objectives (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 2 | 1 | 9,1 | 9,1 | 9,1 |
| | 3 | 1 | 9,1 | 9,1 | 18,2 |
| | 4 | 8 | 72,7 | 72,7 | 90,9 |
| | 5 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Strategy (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 2 | 2 | 18,2 | 18,2 | 27,3 |
| | 3 | 2 | 18,2 | 18,2 | 45,5 |
| | 4 | 4 | 36,4 | 36,4 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Interrelationship between proprety an FM (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 3 | 4 | 36,4 | 36,4 | 45,5 |
| | 4 | 3 | 27,3 | 27,3 | 72,7 |
| | 5 | 3 | 27,3 | 27,3 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Corporate benefits (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 3 | 3 | 27,3 | 27,3 | 27,3 |
| | 4 | 4 | 36,4 | 36,4 | 63,6 |
| | 5 | 4 | 36,4 | 36,4 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Corporate objectives (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 4 | 6 | 54,5 | 54,5 | 54,5 |
| | 5 | 5 | 45,5 | 45,5 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Strategy (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 3 | 1 | 9,1 | 9,1 | 18,2 |
| | 4 | 4 | 36,4 | 36,4 | 54,5 |
| | 5 | 5 | 45,5 | 45,5 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Interrelationship between proprety an FM (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 4 | 4 | 36,4 | 36,4 | 45,5 |
| | 5 | 6 | 54,5 | 54,5 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Corporate benefits (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 4 | 4 | 36,4 | 36,4 | 36,4 |
| | 5 | 7 | 63,6 | 63,6 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

# Histogram



Corporate objectives (Present)

Mean = 3,82
Std. Dev. = ,751
N = 11



Strategy (Present)

Mean = 3,27
Std. Dev. = 1,489
N = 11

Interrelationship between proprety an FM (Present)

Mean = 3,55
Std. Dev. = 1,44
N = 11



Corporate benefits (Present)

Mean = 4,09
Std. Dev. = ,831
N = 11



Corporate objectives (Expected)

Mean = 4,45
Std. Dev. = ,522
N = 11



Strategy (Expected)

Mean = 4
Std. Dev. = 1,483
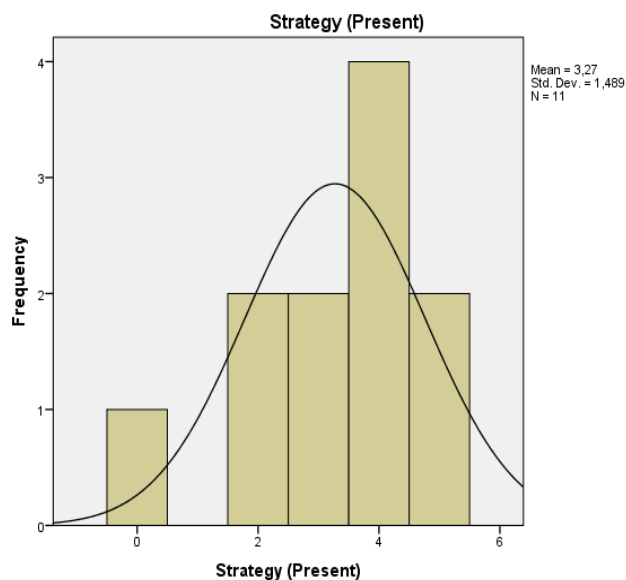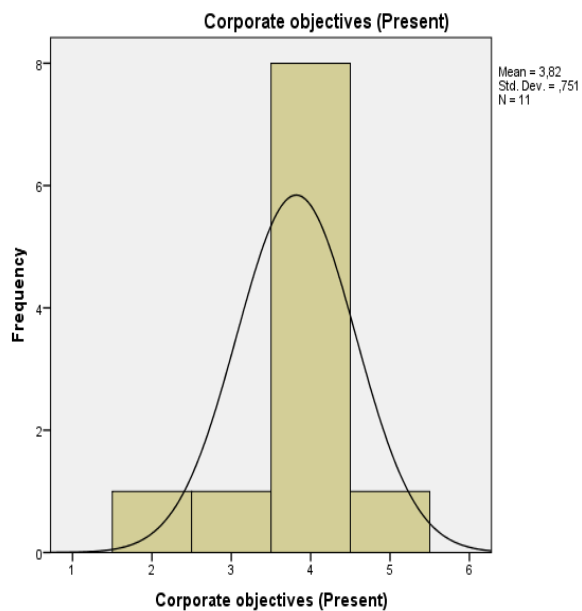N = 11



Corporate benefits (Expected)

Mean = 4,64
Std. Dev. = ,505
N = 11



Interrelationship between proprety an FM (Expected)

Mean = 4,18
Std. Dev. = 1,471
N = 11

# Frequencies
## Frequency Table

**Standards and policies**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Institution 4 | 1 | 9,1 | 9,1 | 9,1 |
| | Institution 5 | 1 | 9,1 | 9,1 | 18,2 |
| | Institution 8 | 1 | 9,1 | 9,1 | 27,3 |
| | Institution2 | 1 | 9,1 | 9,1 | 36,4 |
| | Institution 11 | 1 | 9,1 | 9,1 | 45,5 |
| | Institution 3 | 1 | 9,1 | 9,1 | 54,5 |
| | Institution 9 | 1 | 9,1 | 9,1 | 63,6 |
| | Institution 6 | 1 | 9,1 | 9,1 | 72,7 |
| | Institution 1 | 1 | 9,1 | 9,1 | 81,8 |
| | Institution 10 | 1 | 9,1 | 9,1 | 90,9 |
| | Institution 7 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Presence and ownership of standards and policies (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 2 | 4 | 36,4 | 36,4 | 36,4 |
| | 3 | 3 | 27,3 | 27,3 | 63,6 |
| | 4 | 4 | 36,4 | 36,4 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Integration of policies and standards at all levels (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
| | 2 | 1 | 9,1 | 9,1 | 27,3 |
| | 3 | 4 | 36,4 | 36,4 | 63,6 |
| | 4 | 3 | 27,3 | 27,3 | 90,9 |
| | 5 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Presence and ownership of standards and policies (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 2 | 2 | 18,2 | 18,2 | 18,2 |
| | 3 | 1 | 9,1 | 9,1 | 27,3 |
| | 4 | 5 | 45,5 | 45,5 | 72,7 |
| | 5 | 3 | 27,3 | 27,3 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Integration of policies and standards at all levels (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
| | 3 | 1 | 9,1 | 9,1 | 27,3 |
| | 4 | 4 | 36,4 | 36,4 | 63,6 |
| | 5 | 4 | 36,4 | 36,4 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

# Histogram

Presence and ownership of standards and policies (Present)

Mean = 3
Std. Dev. = ,894
N = 11



Integration of policies and standards at all levels (Present)

Mean = 2,82
Std. Dev. = 1,601
N = 11



Presence and ownership of standards and policies (Expected)

Mean = 3,82
Std. Dev. = 1,079
N = 11



Integration of policies and standards at all levels (Expected)

Mean = 3,55
Std. Dev. = 1,864
N = 11
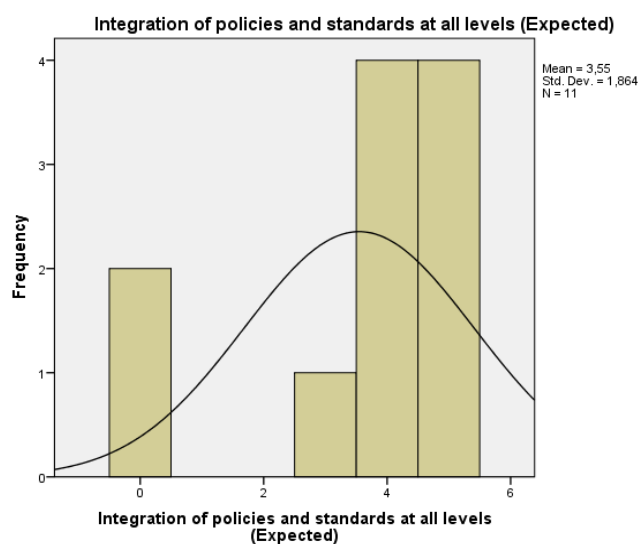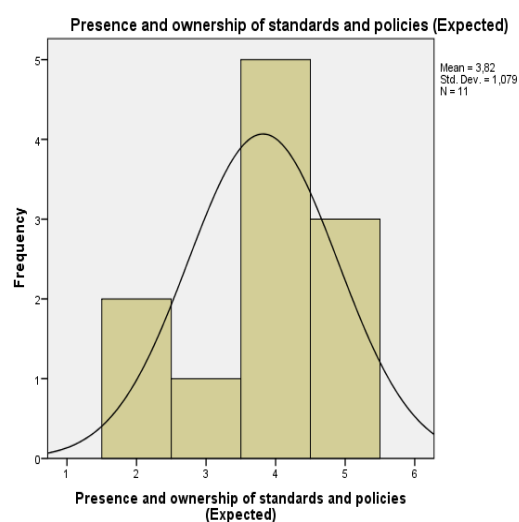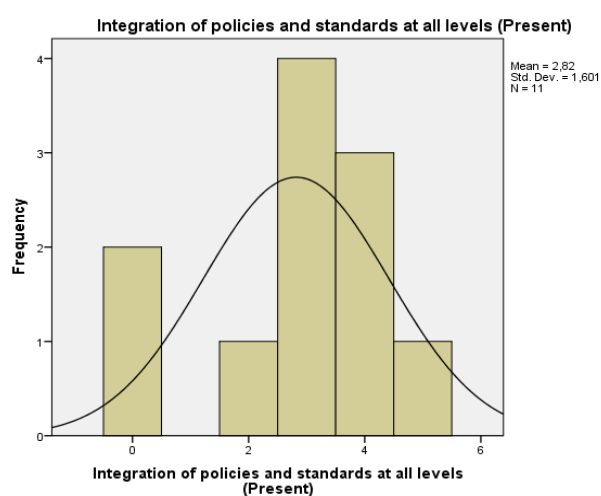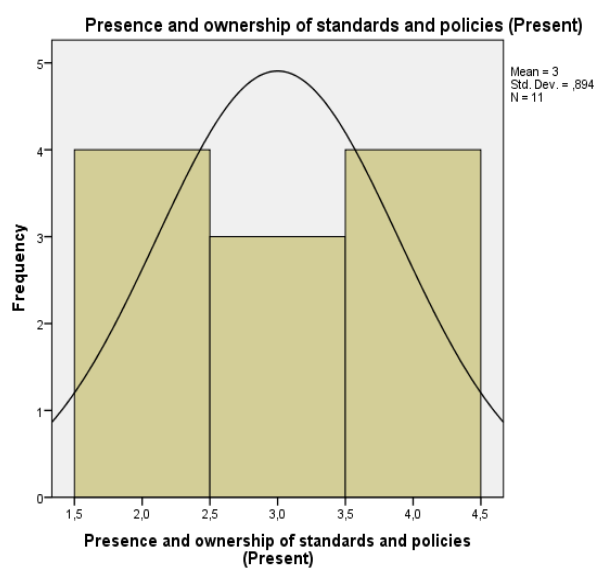
# Frequencies

## Frequency Table

**Planning and budgeting**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Institution 4 | 1 | 9,1 | 9,1 | 9,1 |
| | Institution 5 | 1 | 9,1 | 9,1 | 18,2 |
| | Institution 8 | 1 | 9,1 | 9,1 | 27,3 |
| | Institution 3 | 1 | 9,1 | 9,1 | 36,4 |
| | Institution 11 | 1 | 9,1 | 9,1 | 45,5 |
| | Institution 2 | 1 | 9,1 | 9,1 | 54,5 |
| | Institution 9 | 1 | 9,1 | 9,1 | 63,6 |
| | Institution 6 | 1 | 9,1 | 9,1 | 72,7 |
| | Institution 1 | 1 | 9,1 | 9,1 | 81,8 |
| | Institution 10 | 1 | 9,1 | 9,1 | 90,9 |
| | Institution 7 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**The interrelationship of financial process to standards and policies(Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 1 | 9,1 | 9,1 | 9,1 |
| | 2 | 3 | 27,3 | 27,3 | 36,4 |
| | 3 | 2 | 18,2 | 18,2 | 54,5 |
| | 4 | 3 | 27,3 | 27,3 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Budgetary regime (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
| | 2 | 2 | 18,2 | 18,2 | 36,4 |
| | 4 | 5 | 45,5 | 45,5 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**User`s responsability on space drivers (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 3 | 4 | 36,4 | 36,4 | 36,4 |
| | 4 | 5 | 45,5 | 45,5 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**The interrelationship of financial process to standards and policies(Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
| | 2 | 1 | 9,1 | 9,1 | 27,3 |
| | 4 | 2 | 18,2 | 18,2 | 45,5 |
| | 5 | 6 | 54,5 | 54,5 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Budgetary regime (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
| | 4 | 2 | 18,2 | 18,2 | 36,4 |
| | 5 | 7 | 63,6 | 63,6 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**User`s responsability on space drivers (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 3 | 1 | 9,1 | 9,1 | 9,1 |
| | 4 | 3 | 27,3 | 27,3 | 36,4 |
| | 5 | 7 | 63,6 | 63,6 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

# Histogram

The interrelationship of financial process to standards and policies(Present)

Mean = 3,18
Std. Dev. = 1,328
N = 11



Budgetary regime (Present)

Mean = 3,09
Std. Dev. = 1,814
N = 11



User`s responsability on space drivers (Present)

Mean = 3,82
Std. Dev. = ,751
N = 11



The interrelationship of financial process to standards and policies(Expected)

Mean = 3,64
Std. Dev. = 2,014
N = 11



Budgetary regime (Expected)

Mean = 3,91
Std. Dev. = 1,973
N = 11



User`s responsability on space drivers (Expected)

Mean = 4,55
Std. Dev. = ,688
N = 11
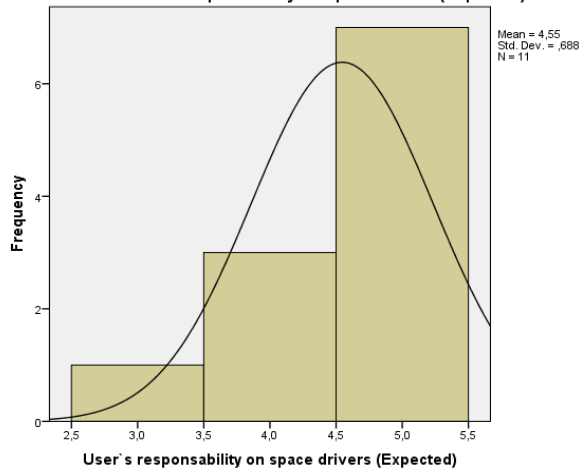
# Frequencies

# Frequency Table

**Service Provision**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | AHO | 1 | 9,1 | 9,1 | 9,1 |
| | HIHM | 1 | 9,1 | 9,1 | 18,2 |
| | HIL | 1 | 9,1 | 9,1 | 27,3 |
| | HIMOLDE | 1 | 9,1 | 9,1 | 36,4 |
| | Institution 11 | 1 | 9,1 | 9,1 | 45,5 |
| | HISF | 1 | 9,1 | 9,1 | 54,5 |
| | KHIB | 1 | 9,1 | 9,1 | 63,6 |
| | KHIO | 1 | 9,1 | 9,1 | 72,7 |
| | Institution 1 | 1 | 9,1 | 9,1 | 81,8 |
| | Institution | 1 | 9,1 | 9,1 | 90,9 |
| | USN | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Management of property and FM services (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 1 | 6 | 54,5 | 54,5 | 63,6 |
| | 2 | 1 | 9,1 | 9,1 | 72,7 |
| | 3 | 2 | 18,2 | 18,2 | 90,9 |
| | 4 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Controlling of services (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 1 | 4 | 36,4 | 36,4 | 45,5 |
| | 2 | 1 | 9,1 | 9,1 | 54,5 |
| | 3 | 4 | 36,4 | 36,4 | 90,9 |
| | 4 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Procurement strategy for FM and proprety services (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 1 | 1 | 9,1 | 9,1 | 36,4 |
| | 2 | 2 | 18,2 | 18,2 | 54,5 |
| | 3 | 1 | 9,1 | 9,1 | 63,6 |
| | 4 | 4 | 36,4 | 36,4 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**External partnerships (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 2 | 5 | 45,5 | 45,5 | 72,7 |
| | 3 | 1 | 9,1 | 9,1 | 81,8 |
| | 4 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

### Controlling of services (Expected)

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
| | 1 | 4 | 36,4 | 36,4 | 54,5 |
| | 3 | 2 | 18,2 | 18,2 | 72,7 |
| | 4 | 1 | 9,1 | 9,1 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

### Procurement strategy for FM and proprety services (expected)

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 4 | 36,4 | 36,4 | 36,4 |
| | 2 | 1 | 9,1 | 9,1 | 45,5 |
| | 3 | 1 | 9,1 | 9,1 | 54,5 |
| | 4 | 3 | 27,3 | 27,3 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

### External partnerships (Expected)

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 4 | 36,4 | 36,4 | 36,4 |
| | 2 | 1 | 9,1 | 9,1 | 45,5 |
| | 4 | 4 | 36,4 | 36,4 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

## Histogram



Management of property and FM services (Present)

Mean = 1,64
Std. Dev. = 1,206
N = 11



Controlling of services (Present)

Mean = 2
Std. Dev. = 1,265
N = 11

Procurement strategy for FM and proprety services (Present)

Mean = 2,18
Std. Dev. = 1,722
N = 11



External partnerships (Present)

Mean = 1,91
Std. Dev. = 1,446
N = 11



Management of property and FM services (Expected)

Mean = 2,18
Std. Dev. = 1,834
N = 11



Controlling of services (Expected)

Mean = 2,18
Std. Dev. = 1,888
N = 11

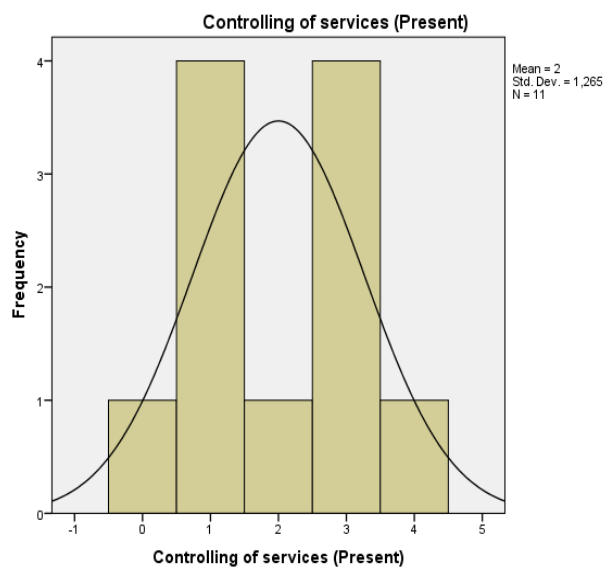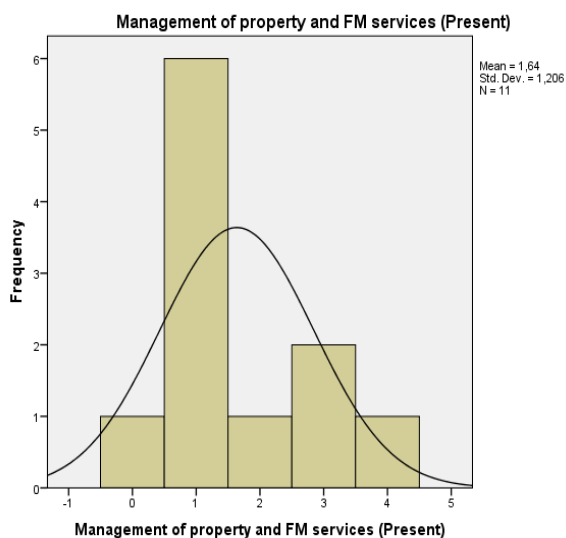External partnerships (Expected)

Mean = 2,55
Std. Dev. = 2,162
N = 11



Procurement strategy for FM and proprety services (expected)

Mean = 2,45
Std.Dev. = 2,115
N = 11

# Frequencies
# Frequency Table

**Organisation fit-for purpose**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Institution 4 | 1 | 9,1 | 9,1 | 9,1 |
| | Institution 5 | 1 | 9,1 | 9,1 | 18,2 |
| | Institution 8 | 1 | 9,1 | 9,1 | 27,3 |
| | Institution 3 | 1 | 9,1 | 9,1 | 36,4 |
| | Institution 11 | 1 | 9,1 | 9,1 | 45,5 |
| | Institution 2 | 1 | 9,1 | 9,1 | 54,5 |
| | Institution 9 | 1 | 9,1 | 9,1 | 63,6 |
| | Institution 6 | 1 | 9,1 | 9,1 | 72,7 |
| | Institution 1 | 1 | 9,1 | 9,1 | 81,8 |
| | Institution 10 | 1 | 9,1 | 9,1 | 90,9 |
| | Institution 7 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Organisational development (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 1 | 2 | 18,2 | 18,2 | 27,3 |
| | 2 | 2 | 18,2 | 18,2 | 45,5 |
| | 3 | 3 | 27,3 | 27,3 | 72,7 |
| | 4 | 2 | 18,2 | 18,2 | 90,9 |
| | 5 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Provision of trategy and services (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 1 | 2 | 18,2 | 18,2 | 45,5 |
| | 2 | 2 | 18,2 | 18,2 | 63,6 |
| | 4 | 2 | 18,2 | 18,2 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Demonstrating the value to the business (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 1 | 2 | 18,2 | 18,2 | 27,3 |

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| | 2 | 3 | 27,3 | 27,3 | 54,5 |
| | 3 | 4 | 36,4 | 36,4 | 90,9 |
| | 4 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Organisational development (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 3 | 2 | 18,2 | 18,2 | 45,5 |
| | 4 | 3 | 27,3 | 27,3 | 72,7 |
| | 5 | 3 | 27,3 | 27,3 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Provision of trategy and services (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 5 | 45,5 | 45,5 | 45,5 |
| | 4 | 2 | 18,2 | 18,2 | 63,6 |
| | 5 | 4 | 36,4 | 36,4 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Demonstrating the value to the business (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 3 | 4 | 36,4 | 36,4 | 63,6 |
| | 4 | 2 | 18,2 | 18,2 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

# Histogram



Organisational development (Present)

Mean = 2,55
Std. Dev. = 1,508
N = 11



Provision of trategy and services (Present)

Mean = 2,18
Std. Dev. = 1,991
N = 11

Demonstrating the value to the business (Present)

Mean = 2,18
Std. Dev. = 1,168
N = 11
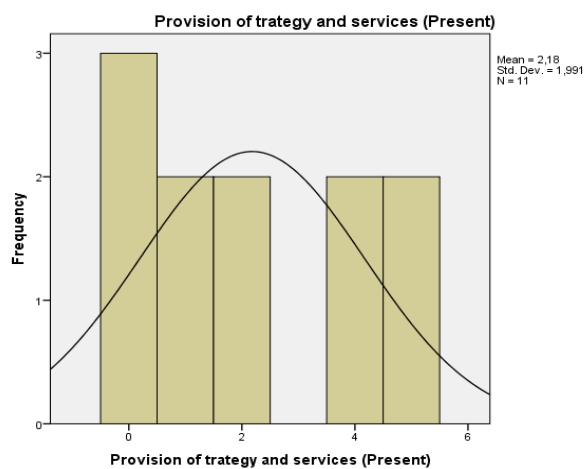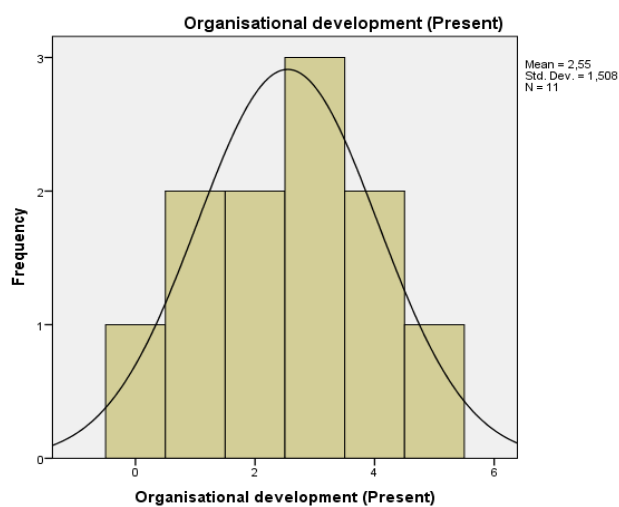


Organisational development (Expected)

Mean = 3
Std. Dev. = 2,049
N = 11



Provision of trategy and services (Expected)

Mean = 2,55
Std. Dev. = 2,464
N = 11



Demonstrating the value to the business (Expected)

Mean = 2,73
Std. Dev. = 1,902
N = 11

# Frequencies
# Frequency Table

**Organisation fit-for purpose**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | INSTITUTION 4 | 1 | 9,1 | 9,1 | 9,1 |
| | INSTITUTION 5 | 1 | 9,1 | 9,1 | 18,2 |
| | INSTITUTION 8 | 1 | 9,1 | 9,1 | 27,3 |
| | INSTITUTION 3 | 1 | 9,1 | 9,1 | 36,4 |
| | INSTITUTION 11 | 1 | 9,1 | 9,1 | 45,5 |
| | INSTITUTION 2 | 1 | 9,1 | 9,1 | 54,5 |
| | INSTITUTION 9 | 1 | 9,1 | 9,1 | 63,6 |
| | INSTITUTION 6 | 1 | 9,1 | 9,1 | 72,7 |
| | INSTITUTION 1 | 1 | 9,1 | 9,1 | 81,8 |
| | INSTITUTION 10 | 1 | 9,1 | 9,1 | 90,9 |
| | INSTITUTION 7 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Organisational development (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 1 | 2 | 18,2 | 18,2 | 27,3 |
| | 2 | 2 | 18,2 | 18,2 | 45,5 |
| | 3 | 3 | 27,3 | 27,3 | 72,7 |
| | 4 | 2 | 18,2 | 18,2 | 90,9 |
| | 5 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Provision of trategy and services (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 1 | 2 | 18,2 | 18,2 | 45,5 |
| | 2 | 2 | 18,2 | 18,2 | 63,6 |
| | 4 | 2 | 18,2 | 18,2 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Demonstrating the value to the business (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
| | 1 | 2 | 18,2 | 18,2 | 27,3 |
| | 2 | 3 | 27,3 | 27,3 | 54,5 |
| | 3 | 4 | 36,4 | 36,4 | 90,9 |
| | 4 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Organisational development (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 3 | 2 | 18,2 | 18,2 | 45,5 |
| | 4 | 3 | 27,3 | 27,3 | 72,7 |
| | 5 | 3 | 27,3 | 27,3 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Provision of trategy and services (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 5 | 45,5 | 45,5 | 45,5 |
| | 4 | 2 | 18,2 | 18,2 | 63,6 |
| | 5 | 4 | 36,4 | 36,4 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Demonstrating the value to the business (Expected)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 3 | 27,3 | 27,3 | 27,3 |
| | 3 | 4 | 36,4 | 36,4 | 63,6 |
| | 4 | 2 | 18,2 | 18,2 | 81,8 |
| | 5 | 2 | 18,2 | 18,2 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

# Histogram



Organisational development (Present)

Mean = 2,55
Std. Dev. = 1,508
N = 11



Provision of trategy and services (Present)

Mean = 2,18
Std. Dev. = 1,991
N = 11

Demonstrating the value to the business (Present)

Mean = 2,18
Std. Dev. = 1,168
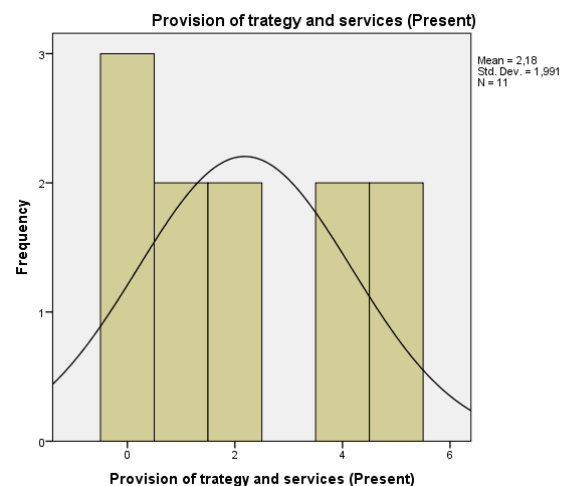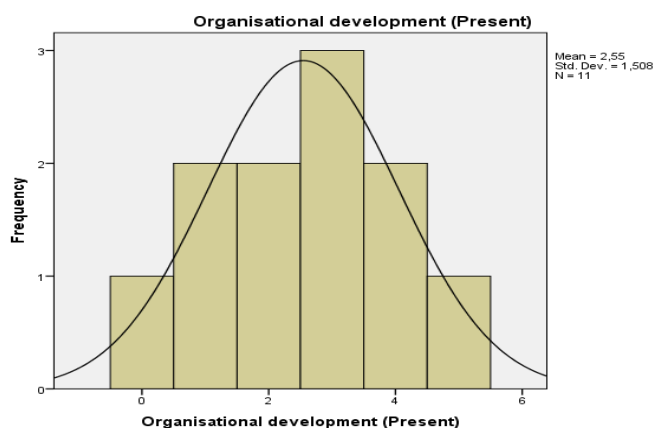N = 11



Organisational development (Expected)

Mean = 3
Std. Dev. = 2,049
N = 11



Provision of trategy and services (Expected)

Mean = 2,55
Std. Dev. = 2,464
N = 11



Demonstrating the value to the business (Expected)

Mean = 2,73
Std. Dev. = 1,902
N = 11

# Frequencies
# Frequency Table

**Personnel development**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Institution 4 | 1 | 9,1 | 9,1 | 9,1 |
| | Institution 5 | 1 | 9,1 | 9,1 | 18,2 |
| | Institution 8 | 1 | 9,1 | 9,1 | 27,3 |
| | Institution 3 | 1 | 9,1 | 9,1 | 36,4 |
| | Institution 11 | 1 | 9,1 | 9,1 | 45,5 |
| | Institution 2 | 1 | 9,1 | 9,1 | 54,5 |
| | Institution 9 | 1 | 9,1 | 9,1 | 63,6 |
| | Institution 6 | 1 | 9,1 | 9,1 | 72,7 |
| | Institution 1 | 1 | 9,1 | 9,1 | 81,8 |
| | Institution 10 | 1 | 9,1 | 9,1 | 90,9 |
| | Institution 7 | 1 | 9,1 | 9,1 | 100,0 |
| | Total | 11 | 100,0 | 100,0 | |

**Training for gaining knowledge and skills (Present)**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
|  | 3 | 5 | 45,5 | 45,5 | 63,6 |
|  | 4 | 1 | 9,1 | 9,1 | 72,7 |
|  | 5 | 3 | 27,3 | 27,3 | 100,0 |
|  | Total | 11 | 100,0 | 100,0 |  |

### Engagement and empowerment (Present)

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
|  | 3 | 5 | 45,5 | 45,5 | 54,5 |
|  | 4 | 3 | 27,3 | 27,3 | 81,8 |
|  | 5 | 2 | 18,2 | 18,2 | 100,0 |
|  | Total | 11 | 100,0 | 100,0 |  |

### Training for gaining knowledge and skills (Expected)

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 2 | 18,2 | 18,2 | 18,2 |
|  | 3 | 1 | 9,1 | 9,1 | 27,3 |
|  | 4 | 2 | 18,2 | 18,2 | 45,5 |
|  | 5 | 6 | 54,5 | 54,5 | 100,0 |
|  | Total | 11 | 100,0 | 100,0 |  |

### Engagement and empowerment (Expected)

|  |  | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0 | 1 | 9,1 | 9,1 | 9,1 |
|  | 3 | 4 | 36,4 | 36,4 | 45,5 |
|  | 4 | 3 | 27,3 | 27,3 | 72,7 |
|  | 5 | 3 | 27,3 | 27,3 | 100,0 |
|  | Total | 11 | 100,0 | 100,0 |  |

## Histogram



Training for gaining knowledge and skills (Present)

Mean = 3,09
Std. Dev. = 1,758
N = 11



Engagement and empowerment (Present)

Mean = 3,36
Std. Dev. = 1,362
N = 11

Training for gaining knowledge and skills (Expected)

Mean = 3,73
Std. Dev. = 1,954
N = 11



Engagement and empowerment (Expected)

Mean = 3,55
Std. Dev. = 1,44
N = 11