# Method to Measure the Impact of Services in Corporate Real Estate/Facilities Management/Workplace Services to Employee Engagement

This invention covers the measurements of the employee experiences of services provided by the Corporate Real Estate or Facilities Management or Workplace Services department of a company/organization in how it impacts/drive Employee Engagement of the company/organization.

Employee Engagement is a well-known term and measurement in Human Resources and is not covered in this invention.

## Summary

There are many methods in the market for measuring the performance of Corporate Real Estate or Facilities Management or Workplace Services department from the eyes of the employees by means of questionnaires.

Most of the methods use questionnaire to ask the employees to rate their satisfaction of the services provided by means of numerical values (0-10), or by Likert scale (very dissatisfied, dissatisfied, neutral, satisfied, very satisfied), etc. Then the results are used to identify which service is good or bad to come up with an action plan particular to the identified service.

This invention is taking a different approach. Rather than stopping at the rating of the services as a conclusion, this invention takes further steps in relating the results with the Employee Engagement score of the particular location (Employee Engagement score is measured/surveyed separately, typically by Human Resources department). The results are not only identifying how well the services are experienced/performed, but this invention allows the company to identify which of the services impact the most to the Employee Engagement.

With this invention, the company will be able to focus their attention to the services that matter to Employee Engagement by means of efforts and investments in Capital Expenditures and Operation Expenses.

A routine measurement by means of questionnaire, say on an annual basis, will allow the company to measure progress and to continue to compare the results with the Employee Engagement scores and focus their investments in the right services.

The outcomes of this process are:

- Improvements in Employee Engagement, which many research shows that it will increase the company's performance in return of assets, profitability and shareholder value (Macey, 2009)
- Allowing the company to focus their investments in Corporate Real Estate/Facilities Management/Workplace Services
- Allowing the company to know the impact of the investments in Capital Expenditures and Operation Expenses to the Employee Engagement score, which then can be reversed in a way of an understanding of how much investment should the company make in order to increase a certain point of Employee Engagement score.

## Brief Description of The Drawings

FIG. 1 is a block diagram illustrating the first part of the method of performing the measurement of impacts of Corporate Real Estate/Facilities Management/Workplace Services to Employee Engagement.

FIG. 2 is a block diagram illustrating how the analytics results can be used

FIG. 3 is a block diagram illustrating how Machine Learning is used in this method

FIG. 4 is a block diagram illustrating how the methodology is applied to identify the best investments opportunities are in Capital Expenditures and Operation Expenses

## Detailed Description of the Methodology

FIG. 1 illustrate the first part of the process of measuring the impacts of Corporate Real Estate/Facilities Management/Workplace Services to Employee Engagement.

Employee Engagement survey is a common practice in multinational companies, this invention requires that the company or organization organized its Employee Engagement survey done by in-house team or a third party (100).

This invention needs the output of the Employee Engagement survey as a whole to be provided in one level more detail, which is what question in the Employee Engagement questionnaire correlates the best with the Employee Engagement score (101). For example: 'How proud are you working with the company?'. Once this is known, the question should then be modified to allow the employees to understand that when they are given the questionnaire for the Corporate Real Estate/Facilities Management/Workplace Services, the

context is this scope of work, not others e.g: compensation, leadership, brand, etc. An example of the modification is 'how proud are you with our workplace?

The questionnaire should include a question for the employees to rate the effectiveness of all the services, e.g: food services, gym, transportation services, security services, meeting rooms, collaboration lounge, focus work area, etc. (103).

Once the results of the questionnaire are in, the data should be cleaned (formatted to ease analysis). Once cleaned, the data should be uploaded to a Machine Learning analytics platform e.g. DataRobot, RapidMiner, etc. The first step is to find the best algorithm for the data (104).

Once the algorithm is selected, then the analytics are performed by setting the proxy question of the Employee Engagement (101) as the target. The analytic would produce the result of a rank of the most impacting services in Corporate Real Estate/Facilities Management/Workplace Services to the proxy of the Employee Engagement score (106).

Focus group discussions should be organized to listen to the employees' narrative of their anecdotal experience with the services under Corporate Real Estate/Facilities Management/Workplace Services (107).

The results from the Machine Learning analytics (106) and the focus group discussions (107) should be then synthesized in a report to be presented to the Corporate Real Estate/Facilities Management/Workplace Services and their relevant Stakeholders (108).

FIG 2. The Use of the Analytics Results

Once the report of the analytics is available (108), the Corporate Real Estate/Facilities Management/Workplace Services can focus on the right services in their efforts as materialized in Capital Expenditures and Operation Expenses (109).

This might be an annual budget of Capital Expenditures and Operation Expenses and implemented over a year or in a multi-year plan (110).

Ideally the survey to measure the impact of Corporate Real Estate/Facilities Management/Workplace Services to Employee Engagement is conducted annually (111) after the implementation above (110).

The new survey results should also be compared with the results of the new Employee Engagement survey, which is assumed to also be held at least annually by the Human Resources function (112).

FIG. 3 The Machine Learning Analytics

The methodology in performing the analytics is as the following.

Once the data from the questionnaire responses are gathered (200), the data needs to be cleansed in the format which enables the analytics to be effective (201).

Once cleansed, the data then uploaded to a commercial Machine Learning platform (e.g. DataRobot, RapidMiner, etc.) with the proxy question of the Employee Engagement score as the target output (202).

The Machine Learning platform can run the analytics using different algorithms, the next step is to compare the algorithms to select the best algorithm for the dataset (203).

Once the best algorithm is selected, then the dataset is run through the algorithm on the Machine Learning platform (204).

The output of the algorithm should include:

1. Top ranks of the services which gave the most impacts to the proxy question of the Employee Engagement score (205)
2. The effects of improving the top ranks services, e.g. from Neutral to Good or from Good to Very Good (206)
3. The text analytics of the free comments field (207) resulting the most often used word(s).

FIG. 4 Investment Analytics

The same process as described in FIG.1 from (101) to (106) can be used to analyze the best investment opportunities in both Capital Expenditures and Operation Expenses.

All spending in the past financial calendar in Capital Expenditure and Operation Expenses per service should be identified (303) and analyzed with the algorithm chosen (106). Depending on the depth of the Capital Expenditures and Operation Expense data, it is also possible to use the data to generate the algorithm (106) and run the analytics based on it.

The output will include but not limited to:

- Top ranks of the most impacting investments to the proxy of the Employee Engagement score (305)
- The effects of improving the investments (Capital Expenditures and Operation Expenses) to the proxy of the Employee Engagement score (306)
- The impact of each investment unit (e.g: US$1,000) of Capital Expenditure and Operation Expense in the high rank services to the Employee Engagement score.

## Claims

1. The method of measuring the employee experience in Corporate Real Estate/Facilities Management/Workplace Services by how the services are impacting Employee Engagement by means of:
   1.1. Using a proxy question to the Employee Engagement score and modifying it to clarify to the audience of the questionnaire that the question is in the context of Corporate Real Estate/Facilities Management/Workplace Services,
   1.2. Using Machine Learning to find the algorithm best to analyze the response of the questionnaire in regard to employee experience in Corporate Real Estate/Facilities Management/Workplace Services to how it impacts Employee Engagement,
   1.3. Using Machine Learning to find the ranks of the most impactful services in Corporate Real Estate/Facilities Management/Workplace Services to the Employee Engagement score
   1.4. Using Machine Learning to find the most impacting investments in services in Corporate Real Estate/Facilities Management/Workplace Services to the Employee Engagement score
   1.5. Using Machine Learning to find the effects of improving investments in services in Corporate Real Estate/Facilities Management/Workplace Services
   1.6. Using Machine Learning to measure the impact of each investment unit (e.g: $1,000) in the services in Corporate Real Estate/Facilities Management/Workplace Services to the Employee Engagement score.
2. The method as stated in Claim 1, that enables Corporate Real Estate/Facilities Management/Workplace Services to measure its impact to the company's Employee Engagement which is proven in many research having direct correlation to company's growth in return on assets, profitability, shareholder value (Macey, 2009).
3. The method as stated in Claim 1, that enables Corporate Real Estate/Facilities Management/Workplace Services to focus its budget in Capital Expenditures and Operation Expenses in services which gives the best return in investments in the form of increase in Employee Engagement score.