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# Abstract

In recent years, as sustainable university management becomes hard, the science education must be conducted by management plans efficiently and effectively. However, no know-hows are established in drawing the management plans up now in at least Japan. Then there are some inappropriate university management plans. Institutional Research (IR for short) is now taken notice as a tool of supporting university management. IR is expected to support drawing university management plans up but no one grasps what kind of support is conducted by IR when drawing university plans up. Accordingly, we conducted a questionnaire survey to know the present situation and problems of support by IR when drawing university management plans, especially mid-term plans of the Japanese national universities, up. Through this questionnaire survey, we survey contents and problems about support of IR when drawing plans up. As the results of this questionnaire survey is now gathering, we will show these results in our paper.

Keywords: university, management plan, institutional research

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#### 1. Introduction

All Japanese universities are expected to manage themselves efficiently and effectively based on their management plans, especially for Japanese national university corporations which are supported by the Ministry of Education (MEXT for short) in the Japanese severe financial situation. However, no expertise to draw management plans up has established in Japanese universities. Every Japanese national university has to draw the mid-term plans, which correspond to the management plans, in order to achieve their mid-term objectives. Here mid-term means 6 years and annual plans are drawn up in each year of this mid-term.

In these circumstances, Institutional Research (IR for short) as one of supporting tools is expected to improve each university's management quality. IR is defined as "providing information to support drawing plan up, drawing policy up, and decision making of universities". Therefore, IR is expected to support executives to draw management plans up.

Accordingly, we conducted a questionnaire survey to know the present situation and problems of support by IR when drawing university management plans up. These results are expected to be basic data to study how to draw appropriate management plans under the support of IR. The targets of this questionnaire survey are the Japanese national universities that are obligated to draw mid-term and annual plans up. In this paper, we examine this situation and clarify problems. Also, we develop the expertise to support executives to draw management plans up by IR through the clarified problems.

# 2. Related works

For Japanese national universities, the database for progress management of mid-term plans [1], the problems occurred in managing mid-term plans' progress [2], and the problems of indicators for mid-term plans [3] were shown. Moreover, the contents of mid-term plans were explained in [4] and [5]. About the role of IR, the results of a questionnaire survey related to IR were shown in [6], and the overall roles of IR were clarified in [7], [8], and [9]. While we could acquire valuable knowledge about not only the management plans of universities but also the role of IR from related works, there were no precede researches about supporting executives to draw management plans up by using IR.

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# 3. Methodology

We conducted a questionnaire survey for directors of planning in all Japanese national universities. The purpose of this questionnaire survey was to know not only the situation of IR but also how to support to draw mid-term plans up by using IR. This questionnaire survey was conducted from November 2017 to December 2017. We obtained 53 answers which was equal to 61.6% of 86 targets. After we sent question booklets to all Japanese national universities, we obtained answers through a web questionnaire survey system powered by Google. In the following parts, from the answers obtained, we show the situation of IR in Section 4, and show the situation and the problems when supporting to draw mid-term plans up by using IR in Section 5.

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#### 4. Situation of IR in Japanese national universities

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The answerers in 49 universities, which are equivalent to 92.5% of all 53 universities completing answering, answered that they have IR function. In the following parts, we explain these 49 universities' answers.

In 2004, all national universities became national university corporations in Japan. From that year, all these universities had to draw mid-term objectives and mid-term plans up. The first mid-term means the term from 2004 to 2009 and the second mid-term means the term from 2010 to 2015. Then the third mid-term started from 2016 and will end in 2023.

About a half of university having IR function introduced it in the second mid-term and about a quarter of these universities introduced it in the last year of the second mid-term. Moreover, 22 universities, which is equivalent to 44.9% of the 49 universities, introduced IR function in the third mid-term.

The answerers in 36 universities, which are equivalent to 73.5% of the 49 universities, answered that they introduced IR function to improve educational effects. The different reason having introduced it was to support executives to draw management plans up and this answer was obtained from 33 universities which are equivalent to about two-thirds of the 49 universities.

# 5. Situation and problem to support executives to draw management plans up by IR function

The answerers in only 12 universities, which is equivalent to 24.5% of 49 universities having IR function, answered that they support executives to draw management plans up by using IR function.

#### 5.1 Universities not supporting to draw management plans up by using IR function

There are 37 universities whose answerers answered that they didn't support their executives to draw mid-term plans up by using IR function. The answerers in 20 universities, which are equivalent to 54.1% of the 37 universities, answered that there were no IR functions in the period to draw mid-term plans up. That is to say, more than half of the 37 universities could not support the executive to draw mid-term plans up because of no IR functions.

The answerers in 27 universities, which are equivalent to 73.0% of 37 universities with no IR support, answered that IR support was necessary to draw mid-term plans up. Supporting executives to draw mid-term plans up is expected in a lot of universities. Therefore, in the fourth mid-term, which means the term from 2024 to 2029, the executives in these universities will draw mid-term plans up by using IR support.

#### 5.2 Universities supporting to draw management plans up by using IR function

The target of this section is 12 universities whose answerers answered that they supported executives to draw mid-term plans up by using IR function.

There were no negative answers for the question "is the support by using IR function useful?". The answerers in 8 universities, which was two-thirds of the 12 universities, evaluate IR function positively.

IR function is used for providing data related to educational and research activities in all 12 universities, for providing data related to management resources in 11 universities, for sharing problems in 9 universities, and for supporting to draw mid-term plans up in all universities. However, there are few universities in which IR function used for providing data to adjust among departments in each university and for supporting to make expressions of mid-term plans. That is to say, we can say that IR function is expected to support to draw management plans up.

Especially, in almost all universities, supporting to make expressions to use in mid-term plans was not conducted. An insufficiency of outcomes in mid-term plans was indicated by the results obtained by analyzing these plans based on logic model [4][5]. All mid-term plans don't have to be drawn up by including outcomes. However, outcomes should be shared in each university through mid-term plans



# in the point of view of realizing efficient and effective management. It is very problematic that there were few interests in supporting to make expressions to use in mid-term plans in many universities. There are some problems, which are related to IR, such as holding detailed data in each department or analyzing data in detail in each department although providing data by IR function. That is to say, some data are provided to executives by IR function but are not enough.

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In addition, other problems which are not related to IR itself also exist. For example, there are few cases sharing and improving any problems for each whole university by IR reports, and cooperation among IR function and the staff drawing management plans up is inadequate. Therefore, in the system of each university, supporting by IR function is not taken advantage enough.

#### 5.3 Contents of supporting to draw mid-term plans up in the future

We asked the 39 universities what kinds of support they needed to support executives to draw midterm plans up. The 39 universities consist of 12 universities which supported executives to draw midterm plans up by IR function and 27 universities which answered that IR function was necessary but didn't support them by IR function. There were major answers such as "providing data related to the situation educational and research activities" (92.3% which is equal to 36 answers), "providing data related to management resources" (82.1% which is equal to 32 answers), and "supporting to make indicators for mid-term plans" (82.1% which is equal to 32 answers) while there were minor answers such as "providing data to adjust among departments in each university" (23.1% which is equal to 9 answers) and "supporting to make expressions to use in mid-term plans" (15.4% which is equal to 6 answers).

#### 6. Conclusion

There are few universities supporting to draw management plans up by using IR function for the present. It means that IR function could not play an important role in drawing management plans up. In the point of view of university management, many management plans could not be drawn up based on enough objective data. Therefore, it is doubtful whether the contents of these plans are rational or not. We can insist that there are few understandings of necessities of IR function in each university. Considering the free writings obtained from the universities having been already supporting by IR function, we can also insist that there must be problems in whole institutional structure to draw management plans up.

Even in the universities not supporting to draw management plans up by using IR function, its necessity will be recognized and the supports will be extended. In the future works, we would like to find the methodologies for realizing appropriate management plans in Japanese universities by clarifying the problems when supporting to draw management plans up by IR function through more detailed hearing surveys and so on.

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