Dynamic Dashboard and Database for People Development

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Abstract. This research is intended to get the design of data recording system that will be recorded on the database and displayed on the dashboard for the department of Commercial Organizational Development in a company. Commercial Organizational Development is responsible for the development of workers who are under commercial. This is done by creating a database to store the data and create an interface so that data that has been collected can be seen easily. The design is done through the making of prototype which is then refined later that will be developed by the company with the making of platform and interface until next. Preliminary results showed a decrease in work time initially worked on for 5 hours 30 minutes decreased to 45 minutes.

Key words: database, dashboard, prototype.

Introduction

Talent development is a very crucial matter for the development of a company. Without capable talent development activities, a company will not be able to properly conduct their business activities. The talent development of the workers needs to be done so that the workers can have the ability in accordance with the development of the times, get fresh ideas, insights and business experience and can increase the effectiveness of a business activity both micro and macro as the results of development activity. The problem faced by company is the spread of data of workers throughout Indonesia in large amounts of data where the data contained the score they received or the temporary assignment they performed including what they learned, their strength and weaknesses of the workers during this program. This happens because there is no standardization recording data, collected data, structured data recording platform and data standardization required by the existing process. Another problem is that there are some irregular databases and when data are needed, it takes time for collecting the data especially about the history of workers. This is certainly in addition to hampering their main work which is the development of human resources in the company also makes the development of workers can become ineffective if the data is not recorded properly.

The need for this database and dashboard should be handled appropriately but also flexibly so that when changes occur, the user can adjust according to the circumstances. The process undertaken by the COD department relies heavily on databases and dashboards as reference and training data records that have been passed or performed by workers. This data recording is also useful for knowing the history of the workers, especially the obligations of what workers have done both in commercial and cross functional divisions. The database is also used to ascertain whether a worker has acquired sufficient skills to move on to the next position or career path. The benefits of a good talent development recording process can be to track talents owned by the workers or talents needed to develop them into the next career path. Another benefit of good data recording is to create a development plan that suits the needs of the organization in the future.

Material and Methods

Management Information System

The system can be defined as a collection or set of elements or variables that are mutually organized, interacted, and interdependent with each other (Al Fatah, 2007: 34-67). Management information system is a tool to present information in such a way that is beneficial to the recipient (Kertahadi, 1995: 175). The purpose of the management information system itself is to present information for decision making on planning, organizing, organizing, controlling the operations activities of a company's subsystem (Murdick and Ross, 1993: 46).

Tabel 1. Times Taken to Gather Data From Trainer (in Seconds)

327	367	347	263	395
429	369	310	286	396
508	277	318	246	243
240	249	306	320	417
247	301	311	329	372
633	409	302	314	220
576	322	327	252	257
343	341	340	316	263

Database

A database is a collection of related files, the relation shown by the key of each file (Kristanto, 1994: 122). This database is a collection of files that have links to other files that create a data building to inform one company, agencies within certain limits. A file that cannot be combined or linked to another file, then the file cannot be called as part of a database but will load its own database.

Dashboard

Dashboard is a visual display of information required by stakeholders in order to monitor and as a basis for analysis to make decisions (Pramudijono, 2017). This dashboard serves to provide information visually in one glance, provide information effectively, and indicators of achievement of work. The main purpose of a business dashboard is to provide interactive access to data, enabling data manipulation to provide appropriate analysis by managers and provide valuable insights for generating informative information. Business dashboards are also created to aid informed decision-making and provide an organization's facility to run a closing strategy gap. According to Monden (1993: 29), the advantages of a business intelligence dashboard include quick and meticulous reporting, improved decision-making, improved customer service and increased profits.

Prototype

Prototype is an iterative process in the development of systems where needs are changed into working systems that are continuously improved through cooperation between users and analysts (Al Fatah, 2007). Making this prototype has several advantages such as: User involvement in analysis and design has the ability to capture needs concretely rather than abstractly and can be used alone (standalone). The design of prototypes is important in the development of systems using the user-centric approach and Prototype itself merpakan media used to see the suitability between the needs of users with the system planned before implemented in real

Results and Discussion

Interview with Program's User

This interview with the user is done with the COD team on how to improve their data collection. Good databases and dashboards are preferred because of the lack of data recorded on some of the activities within this COD department. Data that needs to be collect are the collection of data workers who perform the process of temporary assignment, data collection of workers who are conducting management training activities, data collection of training that has been obtained by workers in the sales function, dashboard data workers in a company's sales division used to know the number of workers positions and composition of workers in an area. Interview result from user is user wants a database and dashboard that user friendly with reference to the average user and easy to modify. The database and the dashboard must also be used as minimum programming language as possible in order to be easily fixed according it's need by thinking of its future use or continuity of this database. This solution is made by using a program that is common in every laptop / desktop in a company. The use of Microsoft Excel is the application used to meet these needs because the data held is generally stored on the program, every laptop / desktop owner has the program and its use is familiar with the daily work. The use of Microsoft Excel applications also considering that to install a new application on your laptop / desktop will take some time because you have to ask for help from the IT Department in a company to do the installation. The use of this program is also based on that the file size is not large so it can be placed on the server so that it can be used in all coverage areas in the company branch across Indonesia in all parts of it too. Work measurements are made when the worker conducts calling activities to perform data requests ranging from picking up the phone to hanging up the phone and getting the required data. The data in Table 1 shows that the average of these activities takes about 334.7 seconds. Employee that are needed to call are 40 employees so it will take the total time of 20040 seconds or 5 hour and 30 minutes to gather the data with 20 people needed to call once and 20 people called twice.

Table 2. Data Needed to be Collected

ID Worker	Position
Program	Assigned Area
Departement	Supervisor name
Worker Name	Supervisor Position
Gender	Join Date per Job
Assigned Location	Finish Date per Job
Join Date	Assessment Point
Status	Next Assigned Position
Worker Grade	Company Review
University	Job Description
GPA	Strengths
Work Experience	Weaknesses
Work Experience Function	

Proposed Workflow

In accordance with the initial goal of reducing the data request time to trainers, a better system and simple platform to perform data input are needed. This will then create and direct the worker independently inputing datas into the existing platform so that the demand for data retrieval activities are reduced and the time can be use formulating

strategic matters of the people's development. First, the trainers will independently enter the data into the new platform. Incoming data will then be checked per area by workers from the COD team and then will be searched which region has not updated the required data then COD team need to contact the trainer from the area in question by phone or email to remind them of updating worker's data in their respective areas. This activity is proposed, in order to avoid looping where the COD team requests continuous data and contacts the trainer at any time and if follow-up action is required, it is not always done by calling continuously but through the most effective media example blast emails.

Usage of Dashboard

Dashboard in this research are split into two objectives: dashboard that contains data development program workers and dashboard, which contains workers data. The purpose of the dashboard of data development program of workers is to know the workers, who are undergoing the development process, what is already natural workers and their info. The worker data dashboard aims to know the number of workers in an area according to their area or position. The development dashboard created to show data that for COD team to get the essential data from the existing database such as. The essential data will assist managers in making decisions and what to do with the number of workers who are in the process of temporary assignment or training process. The dashboard will also be able to provide info on the number of participants of the activity and the number of participants who are doing the activity the dashboard for the worker's own data are made to facilitate the COD team in performing worker calculations in an area at a time. It is necessary to reduce the time in finding the number of workers in a particular area or position. Previously, data collection were done manually through Excel but it takes a long time. This makes dashboard worker data important to shorten the time when it takes the number of people or the number of specific positions in a region.

Prototype

Prototype creation is perfomed when the reviewer approves the proposed workflow. The user review is then refined to the existing database or dashboard as well as additional dashboards. The overall dashboard after review, needs to be fixed and made into the same format to simplify the charging especially on the dashboard. Both dashboards are also must be done separation between national view and individual view. To facilitate the provision of information in general. Another thing that are improved is the display between the dashboard XCL and Temporary Assignment is adjusted similar to make it easier to see the data and there is no confusion when viewing existing data.

Dashboard and Program Overall

Database and Dashboard prototype are done by separating the data by displaying 3 data which is National view of data, individual overalls and individual historically. This is done so that the user can see the national data where needed to show the condition of workers who are monitored for their development. Individual divisions are useful for knowing the worker's ability while in the program and the progress the workers have experienced that during the temporary assignment program. The data that we record in the database are in Table 2. The required data are divided into 2 ie general data, which only needs to be entered once during the program and the specific data per task where the data must be entered when the temporary assignment participants get a new task or new job. Specific data per task is required to determine the progress of the worker as long as the worker is in the program they are currently following, their advantages, disadvantages and judgments during the course of the task.

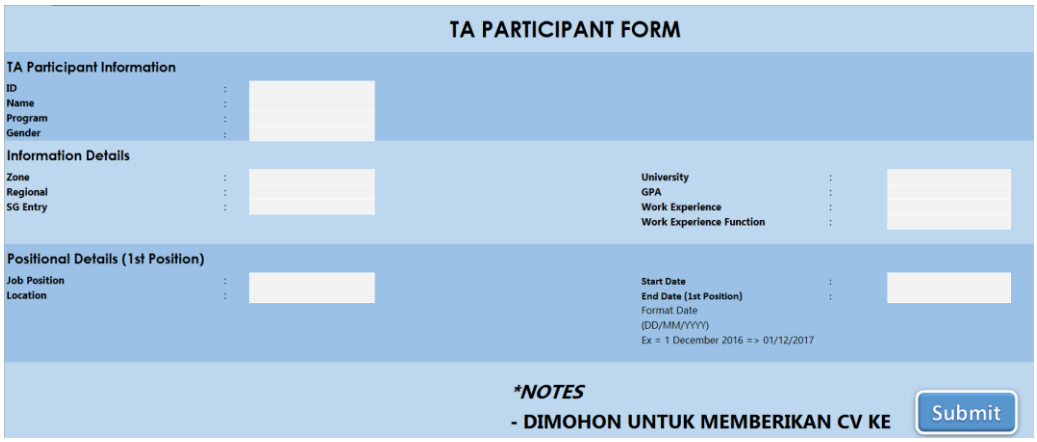

Fig. 1. Participant Form

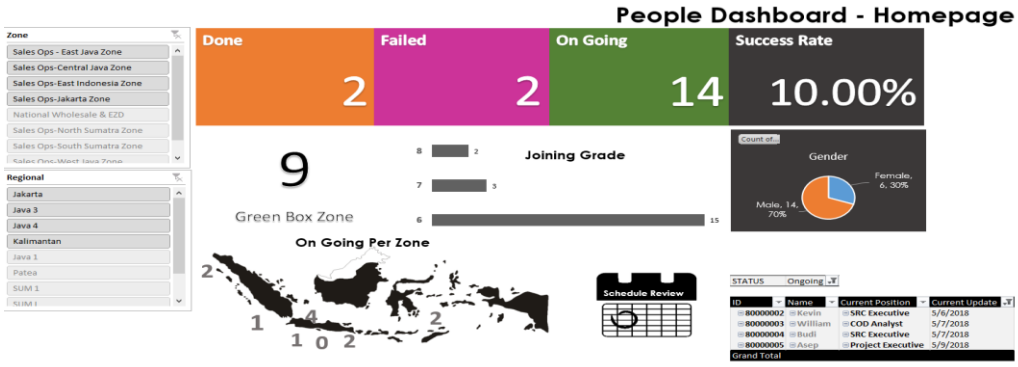

Fig. 2. National Dashboard

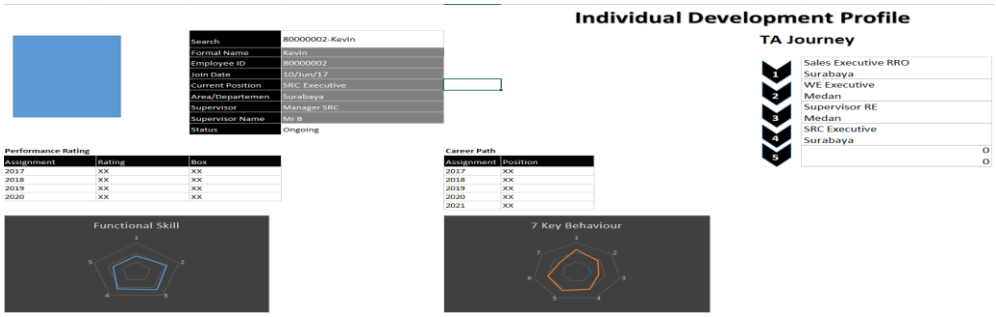

Fig. 3. Individual Development Profile Overall

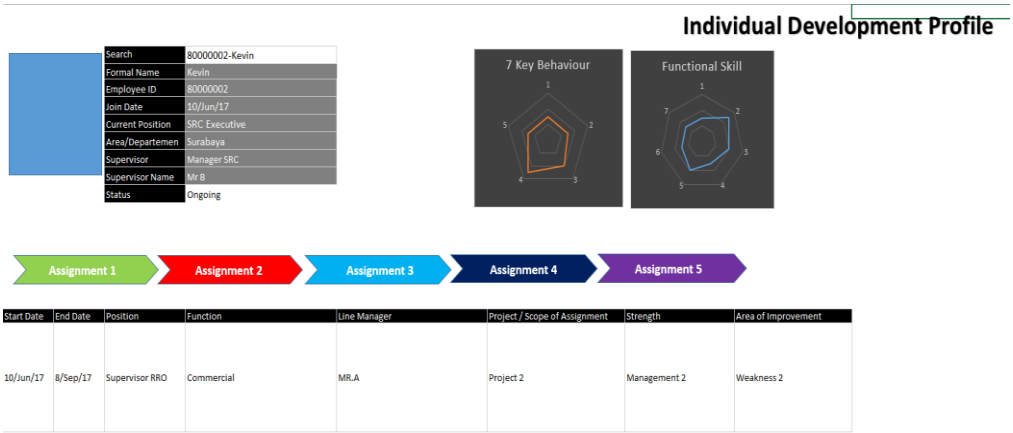

Fig. 4. Historical Development Profile

Dashboard Explanation

Figure 1 describes the use of initial inputs to workers who will perform temporary assignments. The employee data that has been entered on this page will then be saved when it has hit the submit button. The data is then inserted into the database page which is then stored on another page. The stored data is displayed on a national dashboard page. The whole data must be filled and if the data is not filled, it will appear notification that we must fill all data that has been marked with red star. This national dashboard on the left there is a button. The key consists of zone and regional divisions. The button is used to filter the participants to be able to know the participants from the area are in the right area and in accordance with the wishes of the user.

This national dashboard at the top consists of data of participants who are following the Done, Failed, On Going and Success Rate program. Done means that the worker has finished doing the TA program well. Failed means that the worker did not complete the program. On Going means the number of participants who are currently performing the program. In the second part there is a green box zone statement which means that the participants are temporary assignment workers who have more potential than other workers or referred to as talent. The joining grade chart means that the first positions they enter occupy a certain grade. Gender chart is a composition chart of the number of genders that follow this program. The ongoing per zone chart is used to indicate the number of workers undergoing temporary assignment programs in each zone. The review schedule table is used to find out which worker to review on certain dates. The dashboard of this profile is used to find out the worker profile. The top consists of a worker profile, the blue image is where the photo will appear, but it can be done after the dashboard is moved to a better platform. The section under the search function is the employee data that follows the program. The right is a journey or a temporary assignment trip they have done. The bottom consists of 2 charts showing the assessment of the company to the participants of temporary assignment. The last dashboard associated with the temporary assignment database is the dashboard in depth profile. The difference with the dashboard profile is the in-depth dashboard is a dashboard that displays the worker's historical data during this program per task so that users can know the history of workers in joining this program and also what position they have done during the temporary assignment such as their placement and position where they live. It is necessary to know which positions the program participants have participated in and to avoid repetitive assignments.

Conclusion

Making database and dashboard is very necessary as a means to enter the data, especially data on the development of workers who have gone through the process of existing programs. The process of data collection is done by manually calling the trainers who are in the area throughout Indonesia with repetition as much as twice, so it takes about 7 hours 20 minutes or takes 91.67% of the total working time per day. Making dashboards and databases is intended for data scattered in various regions can be collected well and in accordance with the needs of data required by the user. Work time reduction calculations are performed in accordance with the assumptions and results of data collection so that the reduction of working time is 1 hour 34 minutes from the previous total time from the data collection side and 30 minutes from the data processing side. Dashboards and databases are created with the aim that trainers can enter data in accordance with the needs and also the data collected into a reference action to develop the next worker so that workers get the same opportunity in the career path.

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