SCRIBEES: BINUS University’s platform for student services in the age of disruption

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Abstract. The world has entered the 4.0 industrial revolution. The 4th generation of industrial revolution is characterized by smart and automatic interconnectedness. All business institutes are competitively adjusting to accommodate the disruptive challenges to implement relevant technology and innovation to support adequate services for the best and fastest responses to the need of the customers. This article will talk about how Student Club and Activity Center (SCAC) at BINUS University adjusted to the needs of students for efficient and effective services through the form of a newly invented online platform named SCRIBEES which is an online system to process student club’s documents in relation to the planning, execution, and the closing of their organizational programs, projects and activities. It is based on the research which was conducted through a series of focused group discussion and comparative studies on the matter of how a service system should be designed so that it could effectively and efficiently benefit the stakeholders. It aims at showing the benefits, advantages and impacts of having an online platform to solve the administrative workflow difficulties which are commonly faced by manual procedures.

Keywords: Industrial Revolution, the Age of Disruption, Innovation, Document Processing, Dynamic Templating, Student Organizations

1. Introduction

The Industrial Revolution is well connected with urban life with the aim at making things easier for human life. It started roughly from the 18th century when agriculture and plantation were developed forward by modern technological inventions that ease the work of farmers and laborers which were supported by the transport system such as cars, trains and planes and factory machines that produce goods and services. Until now the revolution of the industry has entered into its 4th stage of its development or better known as the Industrial Revolution 4.0 [1].

Industrial revolution 4.0 is supported by the Internet of Things (IoT) and become very influential phenomena in our time. It deeply penetrated people's lives, especially in the service of goods and services. Production and service processes, such as administration and bureaucracy, which were initially difficult, time-consuming, and expensive, become easier, faster, and cheaper with the dawn of this modern technology. The transformation of the services was made effective also by the fact that it involves all interrelated strategic partners and stakeholders such as the government, industry players, institutions, associations, communities and academics [2].

BINUS University shares the vision of the government who realizes that collaborative approaches in the realm of education or academics can be applied through online services for the purposes of the programs offered in student activities such as the Community Service (PPM) which is recognized as a form of optimizing the role of education to foster and empower the societies in developing Indonesia as well as in facilitating student club’s programs, projects and events [3].
The research shows that in the era of technological disruption, all the institutions should answer three disruptive challenges in the contemporary era, namely: first, 55% of organizations stated that the digital talent gap is widening; second, Indonesia needs to improve the quality of workforce skills with digital technology; third, most of the companies use technology to sell their products online [4]. These facts push all institutions to redefine and reconstruct their way of dealing with the whole stakeholders.

The challenges also disrupt the leadership and management styles in the organizations. To build a winning organization, it is necessary to design new, simpler rules, introduce informal attitudes, act quickly, and remove unnecessary restrictions between superiors and subordinates. Jack Welch, the CEO of General Electric, stated that it is everyone's responsibility to eliminate bureaucracy that is not beneficial to the company [5].

The challenges get stronger, in the university sphere because the college students, the Gen Z generations, have their own characteristics: First, they are digital natives. 91% of them said that the sophistication of a company's technology will have an impact on their decision to work for the company. Second, they live in hyper-customized reality that around 56% of Gen Z would prefer to create their own job description than given a generic description. Third, nevertheless, they are realistic in their way to survive and move forward on what needs to be done. Fourth, 75% of Gen Z are interested in multiple roles in one office. Fifth, 93% Gen Z said that a company's contribution to society influences their decision to work for the company. Sixth, 71% Gen Z believe that if they do something right, then they will do it anyway. Seventh, 72% of Gen Z said they were competitive with people doing the same job [6].

All educational institutions and companies should respond to the challenges. One of the main keys to cope with the disruptive changes is velocity. Fast responses are the way to excel. Thus, there needs to be an adjustment of services in fostering students in campuses. All parties must be able to work together with a new system that can make it easier for the students to contribute to building the country [7].

To answer the compelling challenges in campus life, especially to cater to the need of student organizations in BINUS University, Student Club and Activity Center (SCAC) invented SCRIBEES. It is a form of innovation that changes conventional services to become more modern, practical, effective and efficient. It is run by human to machine, not machine to machine, because special coaching is needed for students face to face. However, it is possible for several things to be directed to the system which will automatically decide whether the submitted work program can be approved or not, thus saving time and effort.

2. Methods
This article was done through an observation and discussion with the stakeholders who used the previous manual system and now are using the SCRIBEES platform in the organizing and managing of student activities especially through FGDs (Focused Group Discussion) with the advisers of student organizations, the manager of Student Club and Activity Center (SCAC) at BINUS University, the student organizations leaders at BINUS University based on their reflections and analysis of experiences undergoing the processes of organizing student activities. Therefore, it was conducted through comparative studies on the matter of how well the student service system benefit the stakeholders. The basic question of the research is on what is the most effective and efficient student service system for students in the contemporary era. The feedbacks, analysis, and reflections from the research were then organized into this article.

SCRIBEES was developed as an innovative design of business processes in student services, especially in fostering student organizations through digital information systems. The innovation itself was made to answer and overcome the old workflows problems related to student organizations administrative activities such as, on how can SCRIBEES overcome the inefficiency of queue number systems? How can SCRIBEES solve the time-consuming manual bureaucracy and administration? How can SCRIBEES transform the conventional bureaucratic procedures for the approval of student
club’s programs? How can SCRIBEES help standardize the templates of proposals and their end of report?

This set of questions are the common problems and challenges which occur in various campuses and institutions when dealing with the procedures of planning, executing, coaching, approving and closing of student organization’s initiatives in managing their activities. This article aims at showing the benefits, advantages and impacts of having an online platform to solve the administrative workflow difficulties which are commonly faced by manual procedures.

3. Results and Discussion

3.1. Benefits for the Related Stakeholders

SCRIBEES has become an online platform to solve conventional manual bureaucratic procedures which then can help employees to serve the customers better and minimize human errors. Its implementation has given several important benefits for all stakeholders. First of all, it significantly benefits student organization’s activists and leaders. With SCRIBEES, students can develop, consult and get coached especially process their administrative works on their projects any time and from anywhere. This helps them minimize wasting their time to come to the campus (Student Club and Activity Center) to work and submit their papers because they do not need any longer to waste their time and effort to queue for any bureaucratic procedures. Moreover, they can follow up their papers in real time setting without any need to come to the Student Club and Activity Center office.

Secondly, it also benefits the student organization advisers who are assigned to coach the student clubs. SCRIBEES provides and maintains all templates of the documents therefore it helps standardize the quality of the documents because SCRIBEES’ Dynamic Template system allows documents submitted to have the same format. SCRIBEES also helps develop an efficient document recording because it is able to automatically record the submission date of proposals and their end of reports that have been submitted, commented, revised and approved at all stages of the processes. All the data which are gathered could become a database for the analysis, evaluation and development of the student organizations. Furthermore, all the database can be accessed anywhere and anytime thus the services can be completed more quickly. Aside from that, SCRIBEES also uses the WYSIWYG document processing type which is an inclusive processing type that can allow any devices to create documents and well-integrated with other features such as comments, notes for revision, discussion forum, question and answer notes as well as multi-level approval, et cetera that can serve as the consultation room and activities for all related parties.

This way of administrative processing by SCRIBEES has drastically achieved the resource efficiency targets. Following are the data of immaterial and material advantages from the implementation of SCRIBEES.

3.2. Immaterial Advantages

The case studies done on the student services at BINUS University Student Club and Activity Center (SCAC) shows that SCRIBEES has helped the center reduce the immaterial inefficiencies such as: first, it breaks the bureaucratic processes in the checking, consulting and approving the administrative papers. Before the existence of SCRIBEES, student organizations should pass through at least 4 to 6 levels of checking and consulting therefore it takes around 2 to 3 weeks for the organization to finish their proposal and its end of report. This time wasting has been reduced since through SCRIBEES, the student club can directly and simultaneously reach all related parties for the checking and approving the proposal and the end of report of the projects. Second, SCRIBEES eliminates the waiting time and the queuing processes which are compulsory during the manual and conventional way of document processing in the Student Club and Activity Center (SCAC). Third, SCRIBEES has reduced the workload of the frontline employees of the Student Club and Activity Center (SCAC). Before, SCAC assigned at least two persons in order to collect and register all the papers to be processed in the center. With SCRIBEES, the documentations are done automatically on
the cloud by the computerized online system. Thus, in one way or another SCRIBEES solve the inefficiency in the data collection and checking of incoming documents. Fourth, before the invention of SCRIBEES, there were no standardized formats of proposals and processed documents therefore they lead into much of revision processes just to comply with the expected quality of the documents. With SCRIBEES, the Student Club and Activity Center (SCAC) has made the template or the format of the document with the intended information that the student organizations shall provide therefore it helps all related parties to fill out the information according to the expected data templates.

3.3. Material Advantages
SCRIBEES has saved a lot of costs and expenses usually spent by student organizations. Aside from time, energy and transportation expenses done by the students when they manage the administrative works, SCRIBEES has reduced the material loss of document printings. Online digital paper works through SCRIBEES has cut all the photo copying and printing expenses.

The data from 2018 experiences show for example that there are more or less 69 student organizations in BINUS University. Each student organization has at least 4 to 10 Yearly Programs. Therefore, the manual conventional administrative works would usually spend this kind of expenses estimation:

a.) Total student organizations in BINUS University: 69 organizations
b.) Total yearly programs: 276 to 690 proposals.
c.) Each yearly program must go through 4 times of review processes, namely by 3 advisors of each aspect of the program, and the manager of Student Club and Activity Center (SCAC). If it is assumed that each review requires 2 times revisions for 1 yearly program proposal then there will be around 2,208 to 5,520 sets of proposals being printed out. Thus, if it is assumed that 1 set of proposals requires an average of 25 sheets of paper, then the amount of paper needed are around 55,200 to 138,000 which consumed around 110 to 276 bundle of papers. By the fact that 1 bundle of papers costs around Rp. 45,000 then per year the manual conventional processes would waste around Rp. 4,950,000 up to Rp. 12,420,000 for its administrative work per se not counting the transportations, time and energy involved in the processes.

SCRIBEES has eliminated all those conventional expenses through its digital platform services by turning into more economical internet access fees which are now common and with the availability of WiFi facilities at BINUS University.

In addition, what is interesting is that the digitalization of services by SCRIBEES has made things easier for all parties such as students, Student Club and Activity Center (SCAC)’s staffs, officers, supervisors, managers, head of programs, dean of faculties, et cetera by simplifying the entry flow for document approval which could be accessed virtually anywhere and anytime.

The faster processing of the administrative works has saved time which are advantageous for the more important prioritized needs beyond administrative matters namely for the optimization of monitoring, execution, consultation and coaching of the programs and the management of the organizations.

3.4. Positive Impacts
SCRIBEES has given a lot of positive impacts to all stakeholders especially in terms of developing the student organizations. By saving times, efforts and resources from administrative work, the student organizations activists and leaders as well as the coaches can be more focused and productive on their work to improve the quality of the projects implementations especially in the developing the people and the systems within the organizations.

SCRIBEES also promotes an eco-friendly lifestyle due to its paperless system. This then raises student awareness and change their paradigm and culture which would help them accustomed to promote lifestyle and organizations that preserve the integrity of the environment.
Moreover, since SCRIBEES run in an integrated manner that all stakeholders can check and monitor the documents and reports, it is able to support the vision of having a Good Organization Governance (GOG) in student organizations since it helps to build clear direction, increases trust from all stakeholders, assures stable finances, and sustain the development of the organization.

3.5. New Challenges to Anticipate
After all, it should be said that any progress in technology and communication will always pose certain dilemmas because though it is good as it has been, it will always show a room for improvement. On one hand, digitization is a sign of maturity in democracy, a development in transparency and a transformation in technology. On the other hand, it also poses the risk of being hacked and manipulated by irresponsible parties. Therefore, SCRIBEES is challenged to manage its cyber security and that clear regulatory systems must be established to safeguard existing documents and the data of student organizations.

4. Conclusions
In the era of industrial revolution 4.0, especially in the disruptive age of our time, all organizations should be competitively adjusting in order to adequately respond to the relevant needs and challenges of the customers.

This happens also in the academic community of BINUS University. Student Club and Activity Center (SCAC) as the center that is tasked to help manage and facilitate student clubs and activities has invented SCRIBEES, an online digital platform to give more advanced services to the students.

This platform has successfully solved the conventional bureaucratic procedures by eliminating the time-consuming manual administrative processes, breaking through the inefficiency of queueing number systems, and developing a standardized organizational documents, and introducing the well-connected and integrated paper checking and approval systems by all related parties involved in the student organization’s projects and yearly programs.

It helps all the stakeholders to prepare, monitor, execute and close all the programs through the help of online and digitalized administrative works. It also contributes in the building of well-focused system to improve the performance of the student clubs and to assure the implementation of the Good Organization Governance (GOG).

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