

The Implications of Value-Based Approach in the Compliance of a Faculty Deliverable: A Lean Project Management Methodology

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Abstract - Educational success of a learner heavily relies on the learning facilitator/teacher. A good teacher holds accountability, responsibility and cooperation, and provides feedback on student academic performance efficiently and effectively. This paper reports on a Lean project management methodology employed in a higher education institution in Metro Manila. The project “Grades Distribution” was conceived using the Voice of Customer, an in-depth process of capturing customers’ expectation, aversions and preferences. The project aimed to determine the factors on late finalization of grades, bottlenecks in the progression, and improvement of the processes. The study presented pre-project implementation routes and the implications of the Lean project to the customer (learner), faculty (facilitator), and to the management. The project has considered a value-based approach which a chunk of value is delivered using incremental value-based delivery. Non-value sequences considered as wastes were eliminated. The results show that students become preventative, proactive and sourced. The faculty becomes process and customer focus, integrated and service-oriented. Based on the project results, the Grades Distribution project was successfully implemented and that further improvement on the process and documentation must be regularly reviewed in adherence to the university’s academic and administrative policies.

Keywords - lean project; voice of customer; grades; value-based approach; process-oriented; customer focus.

I. INTRODUCTION

José Rizal University is an autonomous university, non-sectarian, non-stock private educational institution. It is located at Shaw Boulevard, Mandaluyong City, Philippines. It has attuned into the internal and external quality management system as one of the few higher education institutions with ISO Certification and awarded with institutional accreditation. The university offers graduate, law, undergraduate and basic education with the number of programs awarded as Center of Development and Center of Excellence by the Commission on Higher Education. In its quest to providing good education, and by putting the value on its customers first, the university strives to continuously improve its current status by embracing best practices in the processes of its administrative and academic divisions.

Aside from the educational transformation into an Outcomes-based Education, a number of process improvements have been institutionalized making it consistent to its brand promise of becoming the market leader in the use of technology for innovation in teaching and learning to produce graduates of social importance. One process improvement has been mocked based on the internal and external environment scan using the Voice of Customer (VOC).

The educational success of a learner heavily relies on the learning facilitator/teacher. A good teacher holds accountability, responsibility, and is cooperative, and provides feedback on student academic performance

efficiently and effectively. In compliance with the internal quality management system, finalization of grades seven days after the major examination is a value-adding deliverable, and as part of the four-fold function of a faculty. Because of complaints of students and parents of the grades availability online, a value-based approach lean project has been institutionalized. Of numerous student concerns and issues, students wanted their grades seven days after their major examination. This has been identified as the Voice of the Customer. Project management can allude to the utilization of information, aptitudes, devices, and methods to a wide scope of activities or exercises to accomplish the venture targets as the Project Management Institute 2005 puts it. Traditional project management (TPM) strategy is one of the principle methods among other current project management techniques. A project team may perform and undertake a project with innovation in order to meet specific goals. Among the innovations is the used of Lean management system. Lean management framework is intended to convey favored products to boost the important assets and limit the waste assets in various industries [5, 14]. In the event that any undertaking pursues lean administration framework, it is said to be 'lean' ventures [1] and a methodical process management approach [6]. Fundamentally, lean framework conveys what is required, in the correct sum and on the specific time [2].

Lean product management system was initially defined by Eiji Toyoda, the Japanese automobile manufacturer of ‘TOYOTA’ who advocated the approach [7]. After visiting

Ford car manufacturing plants in the US in 1950, he chose to degree Toyota's effect internationally by accomplishing top notch, minimal effort and adaptable yield. So as to accomplish those objectives he thought of how to expand the esteem assets with the decrease of the waste, which was called Toyota production system (TPS). The basic principles of lean production came from the TPS [3] which advances the product development phases and process flow [8]. The LPDS has developed in 2000 from theoretical and sensible examination and is ceaselessly enhancing through

experimentation [9, 10]. Recently the experimentation has focused on the correct definition and the correct plan period of the tasks while actualizing the hypothesis and technique that are taken from the TPS [1, 11]. In these competitive days, service quality and customer satisfaction are considered vital for the organizational success [15, 16, 17]. In the academic industry, customer evaluations are considered as main focus of the academic researchers [18] to identify the service gaps, and sustained conducive and competitive academic environment [19].

CO Prelim Grades Distribution Walkthrough		updated Nov 21, 2011		
Processes	Findings	Recommendations		
Submission of grade component	Late submission of grade components	Strictly enforce deadline for grade component submission. Observe process and deadline for opening new sections so that grade components are defined for new sections on time.	X-7 D+5 *Process for Split ...	Dept Chair Dean
	Wrong definition of grade components	Review grade components before submission to ITO-EDP. Recheck grade components entered to the system.		Dept Chair Dean ITO-EDP
Entry of grade components	Unexpected rearrangement of grade component in the encoding window	Observe sequence when entering grade components for all grading terms in the system.		ITO-EDP
	Some faculty need training in importing grades from an LMS to grade template (2 teachers – Economics)	Set-up Help desk for online entry of grades every grading term to assist faculty with their specific needs.	X+3	ITO-EDP
Entry of grades	Difficulty in accessing AIMS outside JRU (1 teacher – Filipino)	Observe checking of classlist at the beginning of the semester and advise students not in the classlist to see the Registrar. Observe process and deadline for splitting, merging, dissolving and opening of new sections	X+6 *Process for Split ...	Dean Registrar Faculty ITC, VPIS
	There are students not in the grading sheet of classes they attend (cancelled students, student attending wrong section, changes in sub/food applied after deadline)	Conduct online exam not later than the regular exam schedule. Laboratory schedule for online exam should be available at the beginning of the semester.		Dean
Prelim Examination	Online examination given after the exam period (Eco 11.)	Conduct regular monitoring of faculty grade submission (Dept Chair intervention show increased rate of submission)		Dept Chair
Submission of grades	Grades are not available in the system: Grades were not encoded in the Grading Sheets – 21% (305 out of 1441 grading sheets) - Plus Subjects – 9% (133 grading sheets) - Teacher did not encode – 8% (118 grading sheets) - No teacher – 4% (54 grading sheets)	Apply sanctions to faculty who failed to submit the grades on time.		Dean, APO
		Complete faculty loading on schedule. Observe process and deadline for splitting, merging, dissolving and opening of new sections.	X-6 X+6	Dept Chair Dean
		Orient newly hired faculty on the grading system.		Dept Chair Dean
	Grading Sheets have incomplete grades, 1 to 3 students have no grades – 6% (93 out of 1441 grading sheets) - Did not finish encoding – 2% (25 grading sheets) - Students were not given grades – 1% (19 grading sheets) - "Bung" – 1% (13 grading sheets) - No response – 2% (36 grading sheets)	Policies and sanctions for failure to meet deadlines relating to grade submission must be formulated, integrated in the Faculty Manual and reinforced. Deadlines related to Grade submission: - Deadline for splitting, merging, dissolving and opening of new sections - Submission of grade components - Faculty loading - Submission of grades		
Personnel policies do not contain any sanctions and/or penalties for late grade submission.	Deadlines related to Grade submission: - Deadline for splitting, merging, dissolving and opening of new sections - Submission of grade components - Faculty loading - Submission of grades			
Grades viewing	Grades cannot be viewed by students due to account deficiency – student claims to have paid balance, doesn't understand what deficiency means and how to go about it (54 recorded student inquiries)	Maintain accuracy of student account status in Ledgera and AIMS. Account deficiency message appearing in the student module should be clear.		Student Accounts

Fig. 1. The Voice-of-Customer Walkthrough of the Project

II. OBJECTIVES

The lean framework is driven by the distinguished needs of the client and expects to enhance processes by expelling non-value added activities [4]. An improvement methodology was proposed for the design and business

processes. This paper reports pre and post-project implementation of a Lean Project Management methodology employed in a higher education institution in Metro Manila. This paper presents the implication of a value-based approach confined to the Information Technology Department. The project aimed to determine

the factors on late finalization of grades, bottlenecks in the progression, and improvement of the processes.

III. METHODOLOGY

The project was conceived using the Voice of Customer; an in-depth process of capturing customers' expectation, aversions and preferences. The project aimed to determine the factors on late finalization of grades, bottlenecks in the

progression, and improvement of the processes. In the context of this study, Voice of Customer and secondary data analysis were utilized by the researchers. Fig 1 depicts the walkthrough of the Voice of Customer as the basis for embarking process improvement. Fig. 2 presents the result of the lean project simulating the solution of the 7-day customer voice, thus eliminating the non-value adding processes in the Grade Distribution flow in the college academic division of the university.

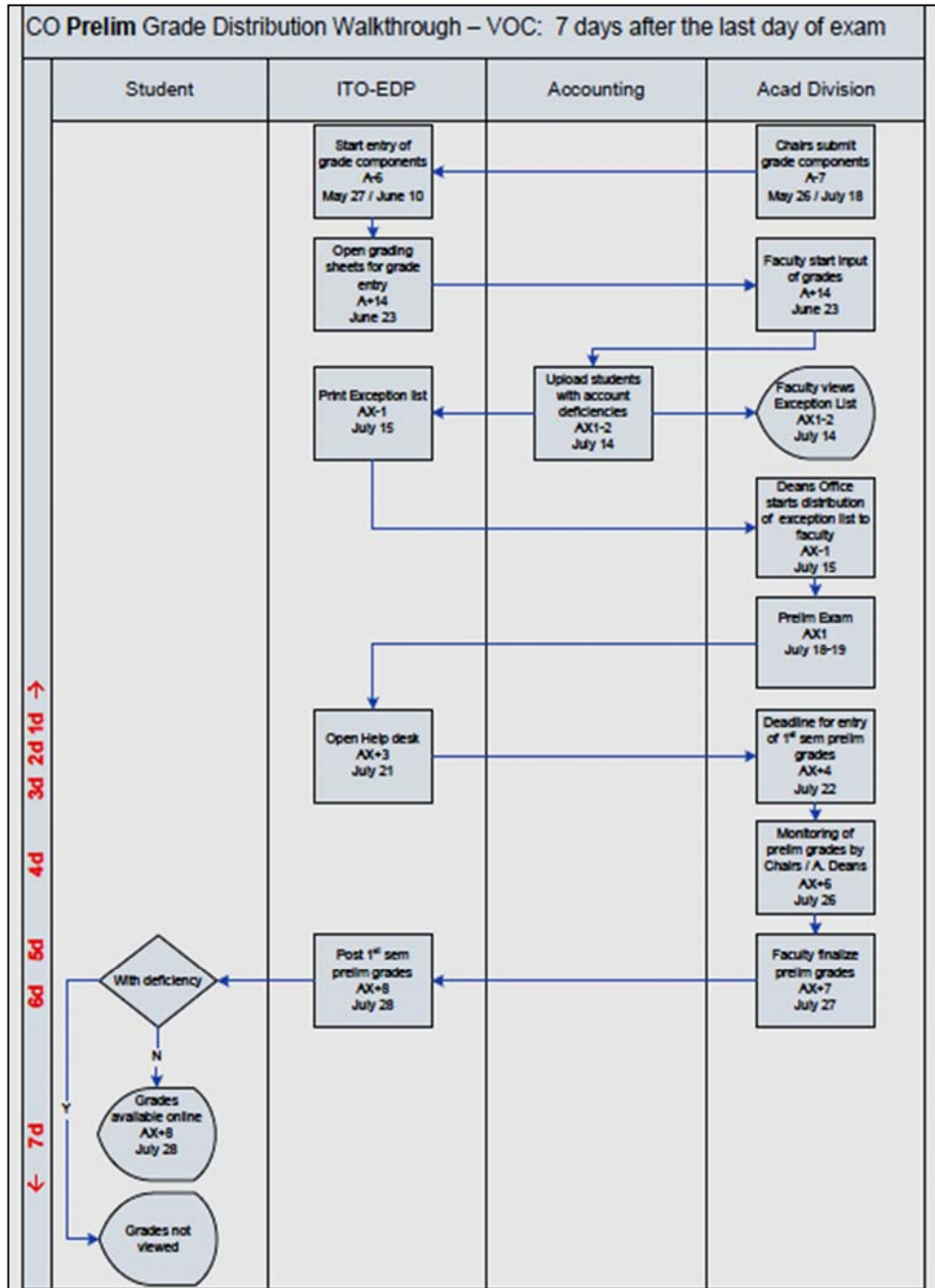


Fig. 2. The Voice-of-Customer Grade Distribution Process

IV. RESULTS AND DISCUSSION

The project has considered a value-based approach which a chunk of value was delivered using incremental value-based delivery. On the basis of secondary data analysis, factors identified as bottlenecks in the progression of faculty deliverables causing far on in time finalization of grades includes, the tedious and copious of grade component entries to be filled-out in the Academic Information Management System (AIMS), and unexpected rearrangement of grade component in the encoding window (AIMS interface). While the college thrives to deliver online grades on time, the university Administrative Manual personnel policies do not contain any sanctions and/or

penalties for late grade submission. Non-value sequences considered as wastes were also eliminated. Fig. 3 depicts faculty compliance in finalization of grades shows that during the 1st semester of SY 2009-2010 only 74% finalized it on time, 4% (1/23) was late, 17% (4/23) finalized the grade 1-day advance, and 4% (1/23) for 2 days advance. On the second semester of the same SY, 87% (20/23) were able to finalize on time, 4% (1/23) for 1 day, 2 days and 3 days respectively. It was evident as reflected in Fig. 3, during the school year 2010-2011 1st semester, that only 43% (10/23) were able to finalize on time. A notable 13% (2/23) even submitted 2 days late, 17% (4/23) submitted 1 day late, and 13% (3/23) finalized their grades on a 1 day, 2 days and 3 days advance.

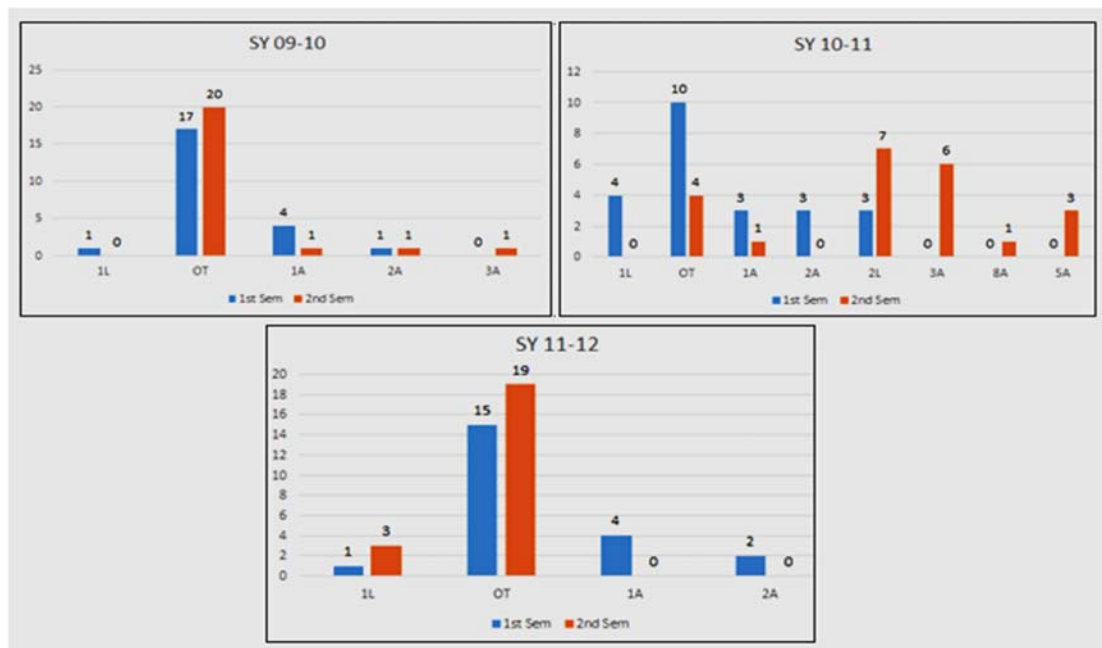


Fig. 3. The IT Department Performance before the Project Implementation

Because of the non-compliance, the project was conceived, and the design and process have been piloted, and eventually, it was institutionalized. A Lean Project Team was established who identified the inefficient processes and eliminated from the design and business processes. Fig. 4 shows the descriptive data generated a year after the project has been rolled-out. As depicted in Table 3, a significant change was observed during the 1st semester of 2012-2013, 1 year after the project implementation, 17% (4/23) able to finalize it, and a notable 65% (15/23) have done their finalization in 1 day advance, then, 9% (2/23) finalized 2 days advance, and 4% (1/23) who have made it to finalized 3 and 4 days prior to the deadline.

It was noted that during the second semester of the same SY, 9% (2/23) finalized their grades on time, and 13% (3/23) 1 day advanced, and a notable 39% (10/23) 2 days

advanced, 22% (5/23) finalized 3 days advanced, and 13% (3/23) finalized 4 days advanced. It was noticeably evident that after the lean project implementation, there were no late in the finalization of grades. On the 1st semester of SY 2013-2014, 2 years after the project implementation, a notable 57% (12/21) was able to finalize it 1 day in advance, and the rest have done their finalization in 2 days advance which was 24% (5/21), and 3 and 4 days advance, 5% (1/21) have finalized prior to the deadline.

In an effort to continuously improve the current performance, during the second semester of SY 2013-2014, a prominent 62% (13/21) finalized their grades 1 day in advance, 24% (5/21) made it on time. Comprising those faculty who have shown finalization of grades in advance is a huge leap for the department, the 10% (2/23) finalized their grade 2 days advance, and 5% (1/23) clicked the finalized button 3 days before due date.

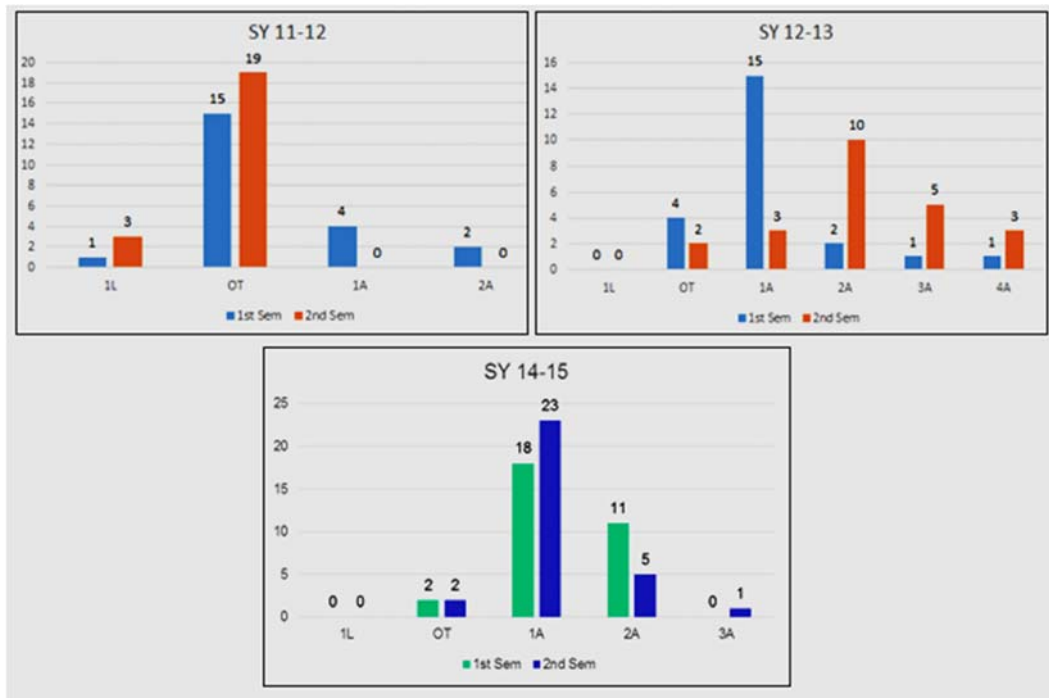


Fig. 4. The IT Department Performance after the Project Implementation

In the last data to prove the effectiveness of the lean project to the IT department, the following SY 2014-2015 showed that in the 1st semester, only 6% (2/31) finalized on time, a significant 58% (18/31) made it 1-day advance, 35% (11/21) for 2 days advance, still no late submissions. In the 2nd Semester, about 6% (2/31) finalized on time, a noteworthy 74% (23/31) for 1-day advance, 16% (5/31) for 2 days advance, and 3% (1/31) for 3 days advance.

Evidently, the venture had been instrumental to the departmental processes enhancement, higher process and structure efficiencies [19], and more output tasks in work hours, enhanced conveyance execution, quicker advancement, more prominent consumer loyalty as for students and parents/guardians and faculty morale and involvement. With the implied results, the students become preventative, proactive and sourced [17, 18]. The faculty members become process and customer focus, integrated and service-oriented. Based on the project results, the Grades Distribution project was successfully implemented and that further improvement on the process and documentation must be regularly reviewed in adherence to the university's academic and administrative policies as vital to generating set of customer requirements [20].

V. CONCLUSION AND RECOMMENDATION

On the basis of the results on the process efficiency and improvements, it can be gleaned that in improving the operational success and delivery of value or services, the Voice of Customers must be given priority over other matters based on customers' value perspective.

Implementing the value-based approach in implementing lean project can be a significant innovation in addressing customer lived experiences in the university. However, continuous process improvement and periodic processes review must be done by the department and university. Everyone who is a part of the university must know that lean is not a pattern or a development but instead an accumulation of tools, methodologies, systems and procedures when executed accurately and in the correct target groups, it will produce quantifiable outcomes, enable organizations deploy cost-efficient programs, and enhance operational effectiveness. The researchers recommend that the strategic leaders and academic managers should look into exploring other internal and external quality management systems, institutionalize Lean methodologies, and conduct an impact assessment of the process improvements, productivity management, and removal of reworks in the academic processes.

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