# OPTIMIZATION OF INDUSTRIAL MATCHING GRANT APPLICATION SYSTEM IN UMP: A VALUE STREAM MAPPING APPROACH

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## SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project and, in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Master in Business Administration.

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## **STUDENT'S DECLARATION**

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.



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Thesis submitted in fulfillment of the requirements for the award of the degree of Master of Science

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#### ABSTRAK

Pemetaan Strim Nilai ialah amalan ramping yang digunakan untuk prestasi berterusan. Ia adalah kaedah atau teknik yang memberikan peningkatan dalam masa utama, masa pemprosesan, produktiviti, kualiti, keuntungan dan kepuasan pelanggan melalui penghapusan sisa. Terdapat banyak teknik serupa di bawah strategi pengurusan kurus seperti Sistem Kanban, Penyelenggaraan Produktif Total dan Sistem Tarik. Dalam kajian ini, kita akan melihat bagaimana proses Geran Padanan Industri UMP dapat dioptimumkan melalui penggunaan Pendekatan Pemetaan Aliran Nilai. Kami ingin tahu sama ada prestasi geran ini boleh dipertingkatkan dan masa utama dan masa pemprosesan adalah lebih singkat. Selain itu, kami juga akan mengetahui sama ada kepuasan pelanggan bertambah baik manakala prestasi geran berada pada tahap terbaik. Pendekatan Pemetaan Arus Nilai juga dikenali sebagai pemetaan aliran bahan atau maklumat terkenal dengan proses tertentu dan mudah mengukur tempoh dan kapasiti yang dihasilkan pada setiap proses. Pemetaan merangkumi kedua-dua bahan dan aliran maklumat dan bermula dari permulaan proses sehingga ia sampai kepada pelanggan. Tujuan utama pendekatan Pemetaan Aliran Nilai adalah untuk mengenali dan membuang sisa dalam pemetaan yang akan memberikan lebih kecekapan kepada aliran nilai. Apabila sisa dikeluarkan, produktiviti meningkat dan kualiti bertambah baik. Dalam pendekatan Pemetaan Aliran Nilai, bagi badan penswastaan, mereka menguatkuasakan Strategi Pengurusan Lean terutamanya untuk meningkatkan keuntungan. Tetapi sebelum itu berlaku, mereka bermula dengan mengenal pasti sisa. Keuntungan dijana dan terus meningkat dengan penghapusan sisa. Pendekatan Pemetaan Aliran Nilai boleh diamalkan dalam setiap perniagaan dan proses kerana ia memberikan sumbangan daripada keseluruhan organisasi. Dalam kajian ini, kami akan memberi tumpuan kepada proses dalam Sistem Pengurusan Geran dan sama ada proses itu boleh dioptimumkan atau tidak dengan pengeluaran sisa dan masa pendahuluan minimum di antara proses.

#### ABSTRACT

Value Stream Mapping is a lean practice that used for continuous performance. It is a method or technique that provide an improvement in lead time, processing time, productivity, quality, profitability and customer satisfaction through waste elimination. There are many similar techniques under lean management strategies such as Kanban System, Total Productive Maintenance and Pull System. In this study, we will be looking at how the process of UMP Industrial Matching Grant can be optimized through the use of Value Stream Mapping Approach. We would like to know whether the performance of this grant can be improved and the lead time and processing time is been shorter. Also, we would also find out whether the customer satisfaction is improved while the performance of the grant is at the level best. Value Stream Mapping approach is also known as material or information flow mapping is famous for specific process and easily quantifies duration and capacity produced at each process. The mapping includes both material and information flows and is starts from the beginning of the process until it reaches the customer. The main purpose of the Value Stream Mapping approach is to recognize and removing waste in the mapping which will provide more efficiency to the value stream. When the waste is been removed, the productivity increased and quality is improving. In Value Stream Mapping approach, for privatization bodies, they enforcing Lean Management Strategy mainly to increase profit. But before that happens, they start with identification of waste. The profit is been generated and keep increased by the elimination of waste. Value Stream Mapping approach can be practiced in every business and process since it provides contribution from entire organization. In this study, we will focus on the processes in the Grant Management System and whether or not the process can be optimized with the waste withdrawal and minimum lead time in between the processes.

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# LIST OF ABBREVIATIONS

GMS	Grant Management System
KPI	Key Performance Indicator
LM	Lean Management
PDCA	Plan, Do, Check, Act
R&I	Research & Innovation
UMP	Universiti Malaysia Pahang
UMP ECOMM	UMP E-Community
VSM	Value Stream Mapping
ZSI	Integrated Research & Innovation Management System

Appendix A: Interview Protocol

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