Title of the Paper must be Title Case, Bolded, Center, 14pt

First Author1, and Second Author2\*

1, 2 Faculty of Industrial Management, Universiti Malaysia Pahang Al-Sultan Abdullah, Lebuhraya Tun Razak, 26300 Gambang, Pahang, Malaysia

\*Corresponding author: authoremail@umpsa.edu.my

# ABSTRACT

An abstract is a concise summary, which highlights key content of a research paper. An abstract summarizes, usually in one paragraph of 250 words or less, the major aspects of the entire paper in a prescribed sequence that includes: 1) the overall purpose of the study and the research problem(s) you investigated; 2) the basic design of the study; 3) major findings or trends found as a result of your analysis; and, 4) a brief summary of your interpretations and conclusions. The abstract should be written in single paragraph, with single space, justify, and 11 font size of Times New Roman. Keywords must be italic, title case, and maximum of five. Please refer the example below.

Keywords: Lean manufacturing, Productivity, Importance-Performance Map Analysis (IPMA), Kanban.

# INTRODUCTION

The introduction leads the reader from a general subject area to a particular topic of inquiry. It establishes the scope, context, and significance of the research being conducted by summarizing current understanding and background information about the topic, stating the purpose of the work in the form of the research problem supported by a hypothesis or a set of questions, explaining briefly the methodological approach used to examine the research problem, highlighting the potential outcomes your study can reveal, and outlining the remaining structure and organization of the paper.

There are three overarching goals of a good introduction: 1) ensure that you summarize prior studies about the topic in a manner that lays a foundation for understanding the research problem; 2) explain how your study specifically addresses gaps in the literature, insufficient consideration of the topic, or other deficiency in the literature; and, 3) note the broader theoretical, empirical, and/or policy contributions and implications of your research.

A well-written introduction is important because, quite simply, you never get a second chance to make a good first impression. The opening paragraphs of your paper will provide your readers with their initial impressions about the logic of your argument, your writing style, the overall quality of your research, and, ultimately, the validity of your findings and conclusions. A vague, disorganized, or error-filled introduction will create a negative impression, whereas, a concise, engaging, and well-written introduction will lead your readers to think highly of your analytical skills, your writing style, and your research approach. All introductions should conclude with a brief paragraph that describes the organization of the rest of the paper.

# LITERATURE REVIEW

## An Overview of Literature Review

A literature review surveys books, scholarly articles, and any other sources relevant to a particular issue, area of research, or theory, and by so doing, provides a description, summary, and critical evaluation of these works in relation to the research problem being investigated. Literature reviews are designed to provide an overview of sources you have explored while researching a particular topic and to demonstrate to your readers how your research fits within a larger field of study.

## Analytical Features of a Literature Review

A literature review may consist of simply a summary of key sources, but in the social sciences, a literature review usually has an organizational pattern and combines both summary and synthesis, often within specific conceptual categories. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or a reshuffling, of that information in a way that informs how you are planning to investigate a research problem. The analytical features of a literature review might:

* Give a new interpretation of old material or combine new with old interpretations,
* Trace the intellectual progression of the field, including major debates,
* Depending on the situation, evaluate the sources and advise the reader on the most relevant research, or
* Usually in the conclusion of a literature review, identify where gaps exist in how a problem has been researched to date.

# METHODOLOGY

The methods section describes actions to be taken to investigate a research problem and the rationale for the application of specific procedures or techniques used to identify, select, process, and analyze information applied to understanding the problem, thereby, allowing the reader to critically evaluate a study’s overall validity and reliability. The methodology section of a research paper answers two main questions: How was the data collected or generated? And, how was it analyzed? The writing should be direct and precise and always written in the past tense.

# RESULTS

When formulating the results section, it's important to remember that the results of a study do not prove anything. Findings can only confirm or reject the hypothesis underpinning your study. However, the act of articulating the results helps you to understand the problem from within, to break it into pieces, and to view the research problem from various perspectives.

The page length of this section is set by the amount and types of data to be reported. Be concise, using non-textual elements appropriately, such as figures and tables, to present results more effectively. In deciding what data to describe in your results section, you must clearly distinguish information that would normally be included in a research paper from any raw data or other content that could be included as an appendix. In general, raw data that has not been summarized should not be included in the main text of your paper unless requested to do so by your supervisor.

Avoid providing data that is not critical to answering the research question. The background information you described in the introduction section should provide the reader with any additional context or explanation needed to understand the results. A good strategy is to always re-read the background section of your paper after you have written up your results to ensure that the reader has enough context to understand the results [and, later, how you interpreted the results in the discussion section of your paper].

In this section you may insert tables and figure to present the findings of the research. The format should follow the example in Table 1, Table 2, and Figure 1.

**Table 1.**

Convergent Validity

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Item | CL | FR | PS | QC | QS | SLP | SN | TPM | UPL | PD |
| 1 | .840 | Deleted | .857 | .735 | .736 | .902 | .791 | .866 | .891 | .768 |
| 2 | .836 | .806 | .880 | .744 | .783 | .847 | .789 | .781 | .853 | .787 |
| 3 | .745 | .758 | .812 | .809 | .688 | .984 | .861 | .873 | .669 | .887 |
| 4 | .854 | .779 | .904 | .800 | .688 | .774 | .833 | .806 | .825 | .720 |
| AVE | .679 | .697 | .750 | .662 | .611 | .750 | .705 | .707 | .661 | .685 |
| CR | .944 | .932 | .947 | .940 | .916 | .954 | .943 | .944 | .931 | .945 |

**Note:** CL = Cellular layouts; FR = Flexible resources; PS = Pull system; QC = Quality control; QS = Quick setup; SLP = Small lots production; SN = Supplier networks, TPM = Total productive maintenance, UPL = Uniform production level, PD = Productivity.

**Table 2.**

Summary of Hypotheses Testing

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Hypotheses | Paths | Std. Beta | Standard Deviation | t-value | Confidence interval bias corrected | Decision |
| 5% | 95% |
| H1 | CL 🡪 PD | .105 | .109 | .962 | -.144 | .300 | Not supported |
| H2 | FR 🡪 PD | .133 | .065 | 2.047 | .015 | .265 | Supported |
| H3 | PS 🡪 PD | -.114 | .085 | 1.343 | -.284 | .050 | Not supported |
| H4 | QC 🡪 PD | .143 | .122 | 1.167 | -.145 | .355 | Not supported |
| H5 | UPL 🡪 PD | -.112 | .074 | 1.509 | -.249 | .039 | Not supported |

**Note:** p < 0.05 (1-tailed)

For the purpose of the citation and references, below is an example how to cite the literature. By using the referencing software (e.g., EndNote and Mendeley), the citations and references are easily organized. The citation and reference should follow APA style.

The impact of LM practices on productivity is schematically shown in Figure 2. The figure indicates that each practice of LM contributes to productivity of production lines. Ground on the literature, this is possible because the implementation of LM shall contribute to the better efficiency and utilization of machines and labors; shorter lead time (Chen & Tan, 2011); reduced defect and rework (Nawanir, Lim, & Othman, 2013; Taj & Morosan, 2011); lower inventory levels (Chen & Tan, 2011; Taj & Morosan, 2011); more flexible machines/equipment and worker (Chen & Tan, 2011; Mackelprang & Nair, 2010); more efficient production processes (Matsui, 2007); fewer interruptions by the machine breakdown (Chen & Tan, 2011; Taj & Morosan, 2011); and JIT delivery from suppliers (Khanchanapong et al., 2014; Nawanir et al., 2013). This accumulation may have a significant impact on productivity.

**Figure 1.**

Hypothesized PLS Path Model



# DISCUSSION

The purpose of the discussion is to interpret and describe the significance of your findings in light of what was already known about the research problem being investigated, and to explain any new understanding or insights about the problem after you've taken the findings into consideration. The discussion will always connect to the introduction by way of the research questions or hypotheses you posed and the literature you reviewed, but it does not simply repeat or rearrange the introduction; the discussion should always explain how your study has moved the reader's understanding of the research problem forward from where you left them at the end of the introduction.

The discussion section is often considered the most important part of your research paper because this is where you:

1. Most effectively demonstrates your ability as a researcher to think critically about an issue, to develop creative solutions to problems based upon a logical synthesis of the findings, and to formulate a deeper, more profound understanding of the research problem under investigation,
2. Present the underlying meaning of your research, note possible implications in other areas of study, and explore possible improvements that can be made in order to further develop the concerns of your research,
3. Highlight the importance of your study and how it may be able to contribute to and/or help fill existing gaps in the field. If appropriate, the discussion section is also where you state how the findings from your study revealed new gaps in the literature that had not been previously exposed or adequately described, and
4. Engage the reader in thinking critically about issues based upon an evidence-based interpretation of findings; it is not governed strictly by objective reporting of information.

# CONCLUSION AND IMPLICATIONS

A well-written conclusion provides you with important opportunities to demonstrate to the reader your understanding of the research problem. These include:

1. Presenting the last word on the issues you raised in your paper. Just as the introduction gives a first impression to your reader, the conclusion offers a chance to leave a lasting impression. Do this, for example, by highlighting key findings in your analysis or result section or by noting important or unexpected implications applied to practice.
2. Summarizing your thoughts and conveying the larger significance of your study. The conclusion is an opportunity to succinctly answer [or in some cases, to re-emphasize] the "So What?" question by placing the study within the context of how your research advances past research about the topic.
3. Identifying how a gap in the literature has been addressed. The conclusion can be where you describe how a previously identified gap in the literature [described in your literature review section] has been filled by your research.
4. Demonstrating the importance of your ideas. Don't be shy. The conclusion offers you the opportunity to elaborate on the impact and significance of your findings.
5. Introducing possible new or expanded ways of thinking about the research problem. This does not refer to introducing new information [which should be avoided], but to offer new insight and creative approaches for framing or contextualizing the research problem based on the results of your study.

# ACKNOWLEDGEMENT

We would like to thank Universiti Malaysia Pahang for the financial assistance through research grants with RDU567456 and RDU456789.

**Non-funded**

This research received no specific grant from any funding agency in the public, commercial, or not-for profit sectors.

# REFERENCES

Chen, Z.-X., & Tan, K. H. (2011). The perceived impact of JIT implementation on operations performance: Evidence from Chinese firms. *Journal of Advances in Management Research, 8*(2), 213-235. doi:10.1108/09727981111175957

Khanchanapong, T., Prajogo, D., Sohal, A. S., Cooper, B. K., Yeung, A. C. L., & Cheng, T. C. E. (2014). The unique and complementary effects of manufacturing technologies and lean practices on manufacturing operational performance. *International Journal of Production Economics, 153*, 191-203. doi:10.1016/j.ijpe.2014.02.021

Mackelprang, A. W., & Nair, A. (2010). Relationship between just-in-time manufacturing practices and performance: A meta-analytic investigation. *Journal of Operations Management, 28*(4), 283-302. doi:10.1016/j.jom.2009.10.002

Matsui, Y. (2007). An empirical analysis of just-in-time production in Japanese manufacturing companies. *International Journal of Production Economics, 108*, 153-164. doi:10.1016/j.ijpe.2006.12.035

Nawanir, G., Lim, K. T., & Othman, S. N. (2013). Impact of lean practices on operations performance and business performance: some evidence from Indonesian manufacturing companies. *Journal of Manufacturing Technology Management, 24*(7), 1019-1050. doi:10.1108/JMTM-03-2012-0027

Taj, S., & Morosan, C. (2011). The impact of lean operations on the Chinese manufacturing performance. *Journal of Manufacturing Technology Management, 22*(2), 223-240. doi:10.1108/17410381111102234

# APPENDICES

Appendix A: Title of the Appendix

Appendix B: Title of the Appendix