



# Journal of Applied Civil Engineering and Practices

Online (e-ISSN): e-ISSN 3109-2551 || 202X, Volume XX, No XX, pp.XX-XX

## The influence of internal weld imperfection size on the implementation of load-bearing capacity of butt-welded joints

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### To cite this article:

Saitherhole E, Marianova S, Magdalena K (202X). The influence of internal weld imperfection size on the implementation of load-bearing capacity of butt-welded joints. *Journal of Applied Civil Engineering and Practice*, Vol (No), Pp 22-32. doi: [xx.xxxx/xxxxxx.202x.xxxxxx](https://doi.org/xx.xxxx/xxxxxx.202x.xxxxxx)

### To link to this article:

<http://doi.org/xx.xxxx/xxxxxx.202x.xxxxxx>





Research paper

## The influence of internal weld imperfection size on the implementation of load-bearing capacity of butt-welded joints

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### ARTICLE INFO

#### Article History:

Received: 21 November 202X

Accepted: 3 November 202X

Published: 27 December 202X

#### Keywords:

Informal Curriculum, Student Perception, Career Choice

#### How To Cite:

Saitherhole E, Marianova S, Magdalena K (202X). The influence of internal weld imperfection size on the implementation of load-bearing capacity of butt-welded joints. *Journal of Applied Civil Engineering and Practice*, Vol (No), Pp XX-XX. doi: [10.22xx/xxx.2023.xxx](https://doi.org/10.22xx/xxx.2023.xxx)

### ABSTRACT (Max 250-300 Words)

**Purpose:** While existing research has explored the association between supervisor support and turnover intention among construction workers, there is a notable gap in the literature concerning the potential mediating role of work engagement in elucidating this relationship, warranting further investigation.

**Methods/Design:** Based on the quantitative research method, the hypothesis was tested. The data were collected from 144 construction professionals using a structured questionnaire. Observed variables were tested using confirmatory factor analysis, and the mediating role relationship was validated using hierarchical regression.

**Findings:** The outcome of this study shows a significant positive impact of work engagement and supervisor support on employee turnover intention. The study further showed that work engagement plays a mediating role in the connection between supervisory support and the intention to turnover and improve project and business performance. Turnover intention, on the other hand, negatively affects project and organizational performance.

**Practical implication:** By enhancing employee work engagement and perceptions of supervisor support, the findings of this study may aid construction organizations in making better judgments regarding the likelihood of employee turnover. The effectiveness of the project and the organization will likely be greatly impacted.

### INTRODUCTION (1 – 2 pages)

Containing backgrounds of the problem, depiction and further scrutiny of the problem or the gap between what is idealized and what is the reality, supported by relevant theories

and recent research, and objective of the study. The problem should offer a new research value or benefit as an innovative endeavour, written more or less 20% of the whole body including the title and abstract. The suggested organization of the paper consists of: Introduction, Method, Results and Discussion and Conclusion. Each part should explicitly declare the contents. Written in Bierstadt font, size 11 with 1.15 spacing on A4 paper (21 cm x 29.7 cm), with a left margin of 2.5 cm, right 2.5 cm, top 2.5 cm and bottom 2.5 cm. The minimum number of pages is 9 pages and maximum number of pages is 16 pages. Writing style using APA 7th edition

**The introduction** should provide a clear background, a clear statement of the problem, the relevant literature on the subject, the proposed approach or solution, and the new value of research. The author should provide previous relevant studies and explain their main limitations, and suggest solutions to solve the limitation, and to show the scientific merit or novelties of the paper.

To do this, the author should first conduct a thorough literature search to identify what is already known in the field of research and what are the gaps to be explored. Link these points with your study design and findings. Highlight the gaps in the Introduction section and mention how your study is going to address any/ some of the gaps.

The literature should be reviewed as a group of articles per method or topic which refers to some literature. In the end of the introduction section, please state the objectives and the novelty of the study. Here is some examples of the statements to show the novelty of the study. Write a research contribution to the introduction that is in accordance with the focus and scope of the Civil Engineering or Construction Journal

*Various studies have shown that..... Unfortunately they do not,...The present study provides .... As such, it helps .....*

*The main objective of this paper is to find .... Even though many researchers were working on ....., very few researchers were reported about ... This data is very useful .....*

*A few researchers focused on ..... There have been limited studies concerned on ..... Therefore, this research intends to ..... The objectives of this research are .....*

Reference numbers are set flush left and form a column of their own, hanging out beyond the body of the reference. The reference numbers are on the line, enclosed in square brackets. Examples: Surgey (xxx) explained that...or vocational construction encourages... (Surgey, xxx).

## **METHODS/DESIGN (1 – 2 pages)**

Method includes research chronological, including research design, research procedure, instruments, and analysis techniques used in solving problems. Written out briefly, concisely, clearly, but adequately so that it can be replicated. This section contains explanations of the research approach, subjects of the study, conducts of the research procedure, use of materials and instruments, data collection and analysis techniques. These are not theories. In the case of statistical uses, formulas that are generally known should not

be written down. Any specific criteria used by the researcher in collecting and analyzing the research data should be completely described, including the quality of the instruments, material of the research, and procedure of data collection. This section should be written about 10% (for qualitative research) or 15% (for quantitative research) of the body

### **FINDINGS (3-5 pages)**

Findings should be an objective description of the results and should be in relation to the objectives of research. You should discuss the findings of the previous studies and specifically mention what new observation or insight was generated through your study results and highlight differences between your findings and the previous studies. Please explore the significance of the results of the work, not repeat them.

Please make sure that this section covers the following questions: (a) How do your results relate to the objectives of the study? What/ How is your finding? (b) Do you provide interpretation scientifically for each of your findings? This scientific interpretation must be supported by valid analysis and characterization (why)? (c) Are your results consistent with what other researchers have reported (what else)? Or are there any differences?

Results can be presented in figures, tables and others that make the readers understand easily. Figures may include images, charts, diagrams, maps and photographs. They should be in black and white. Large figures and tables may span both columns. Figure captions should be centered below the figures while table captions should be located at the top left of the tables. They should be written in **Bierstadt** 9pt. Avoid placing figures and tables before their first mention in the text. See the examples below.

Table 1. Table Title

Scores	(%) Cycle I	(%) Cycle II
90 to 100	12.9%	64.5%
74 to 89	64.5%	35.5%
60 to 75	19.4%	20.1%
0 to 59	3.2%	4.3%

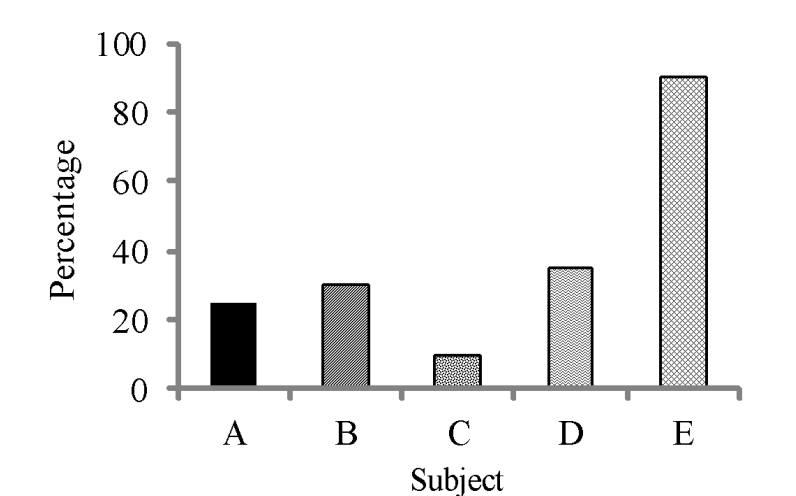


Figure 1. Figure Title

Avoid confusion due to the image axis labels, because figure axis labels are often a source of confusion. Use words rather than symbols. For example, write “Velocity,” or “Velocity (v)” not just “v”. Put units in parentheses. Do not label axes only with units. For example, write “Velocity (m/s)” or “Velocity (ms<sup>-1</sup>)”. Do not label axes with a ratio

of quantities and units. For example, writing “Temperature (K),” not “Temperature/K.” Multipliers can be especially confusing. Write “Energy (kJ)” or “Energy (10<sup>3</sup> J).” Define abbreviations and acronyms the first time they are used in the text, even if they have been defined in the abstract. Number equations consecutively with equation numbers in parentheses. Flush with the right margin, as in (1).

$$E = mc^2 \quad E = mc^2 \quad (1)$$

Symbols of the equation should be defined before the equation appears or immediately follows. Use “(1),” not “Eq. (1)” or “equation (1),” except at the beginning of a sentence, for example:

“Equation (1) is ...”

### **PRACTICAL IMPLICATION (1-2 pages)**

The practical implication must be able to explain the role of research results in increasing knowledge around practical goals or solving real-life problems that include broad impacts on related industries, possible positive and negative results, impacts on government regulations, impacts on society, and so on. The conclusions should not contain only the repetition of the results and discussions. Moreover, the practical implication also suggests future experiments and/or points out those that are underway.

### **ACKNOWLEDGMENT**

This research was supported/partially supported by [Name of Foundation, Grant

maker, Donor].

## **DISCLOSURE STATEMENT**

contains statements that guarantee and ensure that there is no potential conflict of interest from the author

## **NOTES ON CONTRIBUTOR**

This section contains the author's personal data which informs where he works, the focus of expertise, and the research conducted. If there is also an explanation of the organization followed in accordance with the field of expertise to add to the author's information

## **REFERENCES (20 – 50 references)**

Reference entry is arranged in the alphabetical order. All that are referred to in the text must be listed in the reference list and all that are written in the reference list must be referred to in the text. It is advisable to use current journal articles from Web of Science/Scopus indexed journals as reference sources, rather than books or proceedings. The writer is obliged to list all the references in the valid way according to the original sources and URL (https of the DOI (digital object identifier) when available), particularly for entries from journals. In the case of cities of publication, differences should be made in writing cities of the USA and cities outside the USA. For example, cities in the USA are listed together with the initials of the state; e.g.: for Boston of Massachusset: Boston, MA. All references should at least consist of 16 most pertinent and up-to-date sources. 75% (at least 12) of the references must be from reputable international journals. It is highly recommended that the references are written with the **MENDELEY** reference management application (APA 7<sup>th</sup>).

## **Electronic Documents**

### **E-books**

L. Bass, P. Clements, and R. Kazman, *Software Architecture in Practice*, 2nd ed.

Reading, MA: Addison Wesley, 2003. [E-book] Available: Safari e-book.

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A. Altun, "Understanding hypertext in the context of reading on the web: Language learners' experience," *Current Issues in Education*, vol. 6, no. 12, July, 2005. [Online serial]. Available: <https://cie.asu.edu/ojs/index.php/cieatasu/article/view/1856> [Accessed Dec. 2, 2007].

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C. Wilson-Clark, "Computers ranked as key literacy," *The Atlanta Journal Constitution*, para. 3, March 29, 2007. [Online], Available:<http://www.thewest.com.au>. [Accessed Sept. 18, 2007].

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R. Hayes, G. Pisano, and S. Wheelwright, *Operations, Strategy, and Technical Knowledge*. Hoboken, NJ: Wiley, 2007.

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**Note: Titles of unpublished works are not italicized or capitalized. Capitalize only the first word.**

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K. E. Elliott and C. M. Greene, "A local adaptive protocol," Argonne National Laboratory, Argonne, France, Tech. Report. 916-1010-BB, 7 Apr. 2007.

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H. A. Nimr, "Defuzzification of the outputs of fuzzy controllers," presented at 5<sup>th</sup> International Conference on Fuzzy Systems, Cairo, Egypt, 2006.



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H. Zhang, "Delay-insensitive networks," M. S. thesis, University of Chicago, Chicago, IL, 2007.

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O. Singh, "Computer graphics," in *McGraw-Hill Encyclopedia of Science and Technology*, New York: McGraw-Hill, 2007, pp. 279-291.