The Influence of Safety Leadership Through Safety Behaviour on Work Accident in Can Department of PT. XYZ

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ABSTRACT

PT. XYZ has a worrying rate of work accidents in the canning department. This is not in accordance with the company's target of "Zero Accident". This finding further shows that safety leadership and safety behaviour in the can department need to be analyzed more deeply. The purpose of this study is to find out the implementation of safety leadership in the can department of PT. XYZ, knowing about the work accident in the can department of PT. XYZ, knowing the influence of safety leadership on work accidents in the can department of PT. XYZ, knowing the influence of safety behaviour on work accidents in the can department of PT. XYZ, and knowing the influence of safety leadership through safety behavior on work accidents in the can department of PT. XYZ. The method used in the study is quantitative research with the data source being the operators of the can department whose data is collected through a questionnaire. The data obtained will be processed using SEM-PLS. The results of this study found that safety leadership had a significant influence on work accidents with a t-value of 2.233; Safety leadership has a significant influence on safety behavior with a t-value of 2.714; Safety behaviour had a significant influence on work accidents with a t-value of 2.112; and safety leadership through safety behavior has a significant influence on work accidents with a t-value of 2.277.
INTRODUCTION

The existence of the manufacturing sector in Indonesia is very vital in its role, because of its role as the driving force of the Indonesian economy. The impact of the sluggish manufacturing sector was felt during the Covid-19 pandemic. Based on data from the Ministry of Industry, the processing industry sector experienced negative downward pressure of 2.52% in 2020. The decline is slowly recovering, with a growth of 3.67% in 2021. In 2022, this positive trend continues, by scoring growth figures of 5.47% in the first quarter, 4.33% in the second quarter, and 4.88% in the third quarter. In terms of exports, as described by the Central Statistics Agency (BPS), despite global instability, the manufacturing sector continues to make an increasing contribution. In January to October 2022, industrial exports amounted to USD173.20 billion or 76.51 percent of the total national export value. The manufacturing sector experienced an increase in export performance of 20.39% in January-October 2022 compared to the same period in 2021. In addition, the export performance of the manufacturing sector is the basis for national economic expansion (Hidranto, 2023).

Based on Law no. 1 of 1970 concerning Work Safety, in a journal entitled "Management Commitment in Preventing Work Accidents" by Sudalma in 2021, the definition of a work accident is an unanticipated and unwanted event that causes loss of property and casualties and disrupts the regulatory process. an activity (Sudalma, 2021). As many as >80% of the causes of work accidents are unsafe behavior. One factor in whether safety behavior is working or not is safety leadership which is divided into transformational leadership and transactional leadership (Putri, Kurniasih, & Rachman, 2022). Safety Leadership includes the process of defining desired conditions, preparing the team for success, and engaging in efforts that promote safety values (Cooper, 2015). Implementing good safety leadership can be financially beneficial for company performance. This is because it can influence employee safety behavior, help reduce accident rates and insurance premiums, and contribute to increasing productivity by eliminating production obstacles (Cooper, 2015). The results of other studies also state that the safety leadership factor has a positive effect on safety participation, which includes dimensions of safety behavior (Zhao, Yang, Liu, & Nkrumah, 2022).

Based on the fact that the manufacturing industry is the backbone of the Indonesian economy which is also the largest contributor to the number of work accidents in Indonesia, the phenomenon where the can department consistently has work accidents every year with 50% of them being major work accidents and the results of a study in the journal "The Influence of Safety Leadership and Safety Climate Through Safety Behavior Against Work Accidents in Employees" by Anisfu Rahman, Eka Daryanto, Nur Aini in 2023 stated that "safety leadership through safety behavior affects the occurrence of work accidents", the researcher feels that there needs to be further research on "the influence of safety leadership through safety behavior on the occurrence of work accidents in the can department of PT. XYZ".
LITERATURE REVIEW

Organizational Behavior

Organizational behavior can also be defined as a field of study that focuses on understanding, explaining, and improving the attitudes of individuals and groups in organizations (Neck, 2019). Another definition also explains that organizational behavior is the study and practice of how to manage the behavior of individuals and groups of individuals and groups in business, government and non-profit environments (Nahavandi, Denhardt, Denhardt, & Aristigueta, 2015).

Safety Leadership

Safety leadership is leadership that integrates safety factors into each organization’s overall performance (Casey, 2021). Another definition of safety leadership is the process of defining desired conditions, preparing for team success, and engaging in efforts that promote safety values (Gilbert, 2018). Safety behavior refers to actions carried out by members of an entity in connection with safety issues (Adi, Eliyana, & Hamidah, 2020). Safety behavior, which is also referred to as BBS (Behaviour-Based Safety), is defined as an approach to implementing work safety that focuses on worker behavior to prevent work accidents (Reese, 2012).

Work Accidents

Work accidents are incidents that occur while workers are working, including when traveling from their place of residence to their place of work, while on duty and in their free time, as well as when returning home via the road they usually travel on (Rudyanti, 2017). A work accident is any dangerous...
situation or action that has the potential to cause an incident in the workplace (Rahman, Daryanto, & Aini, 2023). From several references that have been discussed, the dimensions of work accidents in this study are the types of work accidents which include: Foot or hand injuries, broken bones, bruises, being hit by hard objects, being hit by falling objects, and all (Faris & Harianto, 2014).

**Research Hypothesis**

This study proposes the following hypotheses:

- *Safety leadership* significantly affects the occurrence of work accidents.
- *Safety leadership* significantly affects *safety behaviour*.
- *Safety behaviour* has a significant effect on the occurrence of work accidents.
- *Safety leadership* through *safety behaviour* significantly affects the occurrence of work accidents.

**METHODOLOGY**

*Data Sources, Data Collection, and Data Analysis Technique*

In research, the subject who is the source of the data is called the data source. Research data sources are classified into primary and secondary. Primary data sources are sources where data collectors obtain information directly. Secondary data sources are sources from which the data collector does not obtain information directly. Researchers use data collection as a procedure to obtain the necessary data. Inquiry is one type of data collection instrument. The questionnaire consists of a series of written questions that are submitted to participants, who complete their responses according to the list of questions provided (Pasaribu, Herawati, Utomo, & Aji, 2022).

The data source for this study is the can department operator PT. XYZ as respondents totaling 110 people. This research utilizes primary data collected through distributing questionnaires filled in by the intended participants. Secondary data is data sourced from internal data from the can department of PT. XYZ. Data collection was carried out through a Google Form questionnaire. This research uses quantitative data analysis techniques including descriptive analysis and hypothesis testing using Structural Equation Modeling-Partial Least Square Method (SEM-PLS). The hypothesis analysis using SEM-PLS is chosen because the variables of safety leadership and safety behavior are latent variables. Additionally, this study uses a sample size that is limited (< 200).

**RESEARCH RESULT AND DISCUSSION**

*Direct Influence of Hypothesis Test*

Table 1. Direct Influence of Hypothesis Test

<table>
<thead>
<tr>
<th>Source: Data that has been processed</th>
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</thead>
<tbody>
<tr>
<td><strong>Original Sample (O)</strong></td>
</tr>
<tr>
<td>SB -&gt; KK</td>
</tr>
</tbody>
</table>
Safety Leadership has a Significant Effect on the Occurrence of Work Accidents

Based on Table 1, the Original Sample value is 0.296. This shows that the consequences of this value are positive. The t-statistic value of 2.233 exceeds the critical value of the t-table, namely 1.96 (≥1.96); Therefore, it can be concluded that the observed effect is significant. So, the first hypothesis (H1) "Safety Leadership has a significant effect on the occurrence of Work Accidents" is accepted. The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Safety Leadership dan Safety Climate Melalui Safety Behavior Terhadap Kecelakaan Kerja Pada Karyawan" which discusses the influence of safety leadership and work accidents, which have a significant effect. (Rahman, Daryanto, & Aini, 2023).

The results of this research hypothesis test are in line with the results of another study entitled "Hubungan antara Safety Leadership dan Pengetahuan K3 dengan Kejadian Kecelakaan Kerja pada Petugas Pemadam Kebakaran Kabupaten Kuningan" which shows that safety leadership has a significant effect on work accidents (Deswiyanti, 2021). The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Kepemimpinan Keselamatan pada Kepala Proyek terhadap Angka Kecelakaan Kerja PT. X dan PT. Y di Kota Solo Jawa Tengah" which shows that safety leadership has a significant effect on work accidents (Kartikawati, 2014).

Leadership Has a Significant Effect on Safety Behaviour

Based on Table 1, the Original Sample value is 0.190, this indicates that this value has a positive effect. Based on the t-statistic value, which is 2.714, this value is greater than the t-table value, namely 1.96 (≥1.96), so this effect can be said to be significant. So, the second hypothesis (H2) "Safety Leadership has a significant effect on Safety Behavior" is accepted. The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Safety Leadership dan Safety Climate melalui Safety Behavior terhadap Kecelakaan Kerja pada Karyawan " which shows that safety leadership has a significant effect on safety behavior (Rahman, Daryanto, & Aini, 2023).

The results of this research hypothesis test are in line with the results of another study entitled "Analisis Pengaruh Faktor Safety Leadership terhadap Safety Behavior Pekerja Industri Kemasan" which shows that safety leadership has a significant influence on safety behavior (Putri, Kurniasih, & Rachman, 2022). The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Safety Leadership terhadap Safety Behavior dan Safety Performance Dimediasi oleh Safety Climate (Studi Kasus: PT. Jatinom Indah Farm)" which shows that safety leadership has a significant influence on safety behavior (Hadi, 2020).
**Safety Behavior Has a Significant Effect on the Occurrence of Work Accidents**

Based on Table 1, the Original Sample value is 0.378, this indicates that this value has a positive effect. Based on the t-statistic value, which is 2.112, this value is greater than the t-table value, namely 1.96 (≥1.96), so this effect can be said to be significant. So, the third hypothesis (H3) "Safety Behavior has a significant influence on the occurrence of Work Accidents" is accepted. The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Safety Leadership dan Safety Climate melalui Safety Behavior terhadap Kecelakaan Kerja pada Karyawan" which shows that safety behavior has a significant effect on work accidents (Rahman, Daryanto, & Aini, 2023).

The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Perilaku Tenaga Kerja dan Lingkungan Kerja yang Dimoderasi Faktor Pengalaman Kerja dan Tingkat Pendidikan terhadap Kecelakaan Kerja Konstruksi di Surabaya" which shows that safety behavior has a significant effect on work accidents (Faris & Harianto, 2014). The results of this research hypothesis test are in line with the results of another study entitled "Hubungan antara Perilaku Keselamatan, Pengetahuan dan Kepatuhan Penggunaan APD dengan Kejadian Kecelakaan Kerja pada Pekerja Bangunan PT. Adhi Persada Gedung di Proyek MTH 27 Office Suite Jakarta Tahun 2021" which shows that safety behavior has a significant effect on work accidents (Saraswaty, 2021).

### Indirect Influence of Hypothesis Test

Table 2. Indirect Influence of Hypothesis Test

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<tbody>
<tr>
<td>Original Sample (O)</td>
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<td>0,122</td>
</tr>
<tr>
<td>Sample Mean (M)</td>
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<td>0,049</td>
</tr>
<tr>
<td>Standard Deviation (STDEV)</td>
<td>2,277</td>
<td>0,012</td>
</tr>
</tbody>
</table>

**Safety Leadership Through Safety Behavior Has a Significant Effect on the Occurrence of Work Accidents**

Based on Table 2, the Original Sample value is 0.112, this indicates that this value has a positive effect. Based on the t-statistic value, which is 2.277, this value is greater than the t-table value, namely 1.96 (≥1.96), so this effect can be said to be significant. So, the fourth hypothesis (H4) "Safety Leadership through Safety Behavior has a significant effect on the occurrence of Work Accidents" is accepted. The results of this research hypothesis test are in line with the results of another study entitled "Pengaruh Safety Leadership dan Safety Climate melalui Safety Behavior terhadap Kecelakaan Kerja pada Karyawan" which shows that safety leadership, which significantly influences safety behavior, also has a significant influence on the occurrence of work accidents (Rahman, Daryanto, & Aini, 2023). The results of this research hypothesis test are in line with the results of another study entitled "Strategi Peningkatan Kinerja Keselamatan Perusahaan Pengelola Awak Mobil Tangki BBM" which shows that safety...
leadership, which significantly influences safety behavior, also has a significant influence on the occurrence of work accidents (Hartanto, 2020).

CONCLUSIONS AND RECOMMENDATIONS
The conclusions obtained from this study are as follows:

- **Safety leadership** in the can department of PT. XYZ is in the pretty good category with a percentage of 60.5%.
- **Safety behaviour** in the can department of PT. XYZ is in the pretty good category with a percentage of 61.3%.

Work accident in the can department of PT. XYZ is in the category quite often with a percentage of 60.8%.

- **Safety leadership** has a significant effect on the occurrence of work accidents.
- **Safety leadership** has a significant effect on safety behavior.
- **Safety behaviour** has a significant effect on the occurrence of work accidents.
- **Safety leadership** through safety behavior has a significant effect on the occurrence of work accidents.

Based on respondents' responses to the variables of safety leadership, safety behavior, and work accidents, here are things that can be done to improve safety leadership and safety behavior and reduce the rate of work accidents at PT. XYZ:

- Role Modeling: Management must be an example for subordinates in terms of occupational safety.
- Coaching Provides training, knowledge, and motivation to subordinates in maintaining work safety.
- Individual Respect: Actively pay attention to the safety and welfare needs of subordinates.
- Performance Management: Perform performance management related to occupational safety by assigning responsibilities and changing regulations regularly.
- Identify Unsafe Behavior: Through records of injuries and near-fatal incidents.
- Checklist Development: To pay attention to the behaviors involved in the injury.
- Occupational Safety Training: For all employees involved with training led by observers, facilitators, and champions.
- Safety Behavior Evaluation: Through the observation of ongoing behavior.
- Feedback: Provides comprehensive feedback on observations.
- Safe Storage: Store fall-risk objects or equipment properly.
• Use of Protective Equipment: Such as safety helmets in areas at risk of falling.
• Supervision and Training: Pay attention to the supervision of employees and provide training on safe working methods.

Based on the field conditions in the can department of PT. XYZ, the researcher provides suggestions that can be done in order to overcome existing problems by:

1. It can consider the existence of a position that is indeed special for operators who have good performance, so that it can spur work motivation safely and well. Giving achievements can also be an option in awards for operators who have high safety motivation.
2. It can consider improving the working conditions of operators, such as updating work procedures that can help operators work safely and have a good level of productivity.
3. Consider the provision of regular seminars / training on the importance of safety behaviour. It is hoped that with these routine activities, safety behaviour can be made a habit at work.
4. Considering the provision of information and warnings in the form of graphics in each work area, it is hoped that operators can know how dangerous it is not to do their work safely.
5. Reduce activities that use hard hammers such as making wooden pallets by using the services of wood manufacturing vendors.
6. Consider minimizing the frequency of engine setup so that activities that require beating with hard tools can be reduced.

ADVANCED RESEARCH

In writing this article the researcher realizes that there are still many shortcomings in terms of language, writing, and form of presentation considering the limited knowledge and abilities of the researchers themselves. Therefore, for the perfection of the article, the researcher expects constructive criticism and suggestions from various parties.
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