

## Enhancing Information Technology On Organizational Performance Through In Cement Industry South Sulawesi

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**Abstract:** This study aims to analyze and test the effect of information technology on organizational performance in the cement industry in South Sulawesi, namely PT Semen Tonasa and PT. Bosowa Cement. This research was conducted quantitatively using a questionnaire as a data collection tool. The structural equation model is used to test the hypothesis using the Smart-PLS Version 3.0 program. Data was collected by administering questionnaires to 94 employees of the two cement companies. The results of this study indicate that information technology has a direct and significant effect on organizational commitment. Information technology has no direct significant impact on employee motivation. Information technology, organizational alerts, and employee motivation have a direct positive impact on organizational performance. Information technology positively and significantly indirectly affects organizational performance through organizational commitment and employee motivation.

**Keywords:** Information Technology; Organizational Commitment; Employee Motivation; Organizational Performance.

**Abstrak:** Penelitian ini bertujuan untuk menganalisis dan menguji pengaruh teknologi informasi terhadap kinerja organisasi pada industri semen di Sulawesi Selatan yaitu PT Semen Tonasa dan PT. Semen Bosowa. Penelitian ini dilakukan secara kuantitatif dengan menggunakan kuesioner sebagai alat pengumpulan data. Model persamaan struktur digunakan untuk menguji hipotesis menggunakan program Smart-PLS Versi 3.0. Pengumpulan data dilakukan melalui pemberian kuesioner kepada 94 karyawan kedua perusahaan semen tersebut. Hasil penelitian ini menunjukkan bahwa teknologi informasi berpengaruh secara langsung dan signifikan terhadap komitmen organisasi. Teknologi informasi tidak berpengaruh signifikan secara langsung terhadap motivasi kerja karyawan. Teknologi informasi, peringatan organisasi, dan motivasi karyawan berpengaruh langsung positif terhadap kinerja organisasi. Teknologi informasi berpengaruh tidak langsung positif dan signifikan terhadap kinerja organisasi melalui komitmen organisasi dan melalui motivasi kerja karyawan.

**Kata Kunci:** Teknologi Informasi; Komitmen Organisasi; Motivasi Kerja Karyawan; Kinerja Organisasi.

## INTRODUCTION

Globalization has changed consumers' perspectives or perceptions in determining a product's choice. The challenge of globalization today is developing strategies for improving human resources that maximize their work performance (Dedi, 2016). The cement factories managed by state-owned enterprises (SOEs) have become one name



under PT Semen Indonesia (Persero) Tbk., which includes Gresik, Padang and Tonasa cement. However, many cement brands, such as Andalas, Merah Putih, Garuda, SCG, Bima, Serang, Hippo, Holcim, Rajawali and Bosowa cement, are circulating in the market.

Over time, cement factories were established in Europe and then spread to European colonies in Asia. In 1906, a Dutch government engineer named Corel Christopher discovered a large deposit of limestone and silica stone in Indarung, Padang, West Sumatra. In 1910, a private Dutch company was established under NV. Nederlands Indische Portland Cement Maatscappij (NV. NIPCM). In 1910 NV. Nederlands Indische Portland Cement Maatscappij (NV. NIPCM) in Padang West Sumatra, 1958 NV. NIPCM changed its name to PT Semen Padang, 1957 PT Semen Gresik in East Java, 1968 PT Semen Tonasa in Pangkep - South Sulawesi, 1975 PT Semen Cibinong and PT Indocement, 1999 PT Semen Bosowa in Maros - South Sulawesi, 2013 PT Semen Gresik changed its name to PT Semen Indonesia.

PT Semen Bosowa Maros is a national private cement factory located in Baruga Village, Bantimurung District, Maros Regency, South Sulawesi Province, 45 km from Makassar city and 10 km from Maros city. PT Semen Bosowa Maros is a subsidiary of Bosowa Corporation, which H. M. Aksa Mahmud founded on April 6, 1978. The background for choosing the name Bosowa comes from the abbreviation Bone, Soppeng, Wajo, which is based on the historical background of the Bugis Kingdom, known as "Telle Poccoe" (a triad), namely the Kingdom of Bone, the Kingdom of Soppeng, and the Kingdom of Wajo. Throughout history, the three kingdoms have always been in harmony and peace, brothers and sisters and helping each other in every way.

The sales of cement in Indonesia are satisfactory. Cement is an important element for a nation's economy as this binder is a building material used for infrastructure and property development. As such, cement sales give valuable information about savings and investment in a country. Rapidly accelerating domestic cement sales indicate that the infrastructure and property sectors are booming. The cement industry of Indonesia is a lively one. The country's total installed production capacity expanded from 37.800 million tons in 2010 to over 100 million tons in 2016, while domestic sales surged from 40 million tons to an estimated 60 million tons over the same period. This is evidenced by the increase in domestic and international cement sales compared to previous years. The cement industry in Indonesia is currently facing the problem of *over-supply*, which means that supply is higher than demand. According to data from the Indonesian Cement Association (ICA), the total sales of the cement industry in Indonesia in 2017 reached 69.208 million tons. This figure rose 9.500 per cent compared to 2016, which only recorded sales of 63.202 million tons of cement. The largest cement consumption is still on the Java island, reaching 37.400 million tons. This figure is up 12 per cent compared to total consumption in 2016, which was only 33.447 million tons (ICA, 2018). **Table 1** describes the market share of Indonesia's top 5 cement companies.



**Table 1.** Market Share of the Top 5 Cement Companies in Indonesia - per cent (January to March 2018)

Zone	Semen Indonesia	Tiga Roda	Holcim	Bosowa Maros	Conch Cement
Sumatera	41.367	11.966	21.154	2.054	2.445
Jawa	36.047	34.664	16.915	0.612	1.721
Kalimantan	41.031	24.921	7.034	2.500	21.066
Sulawesi	61.125	11.432	1.446	18.969	7.297
Bali	39.541	36.217	8.487	6.045	2.030
Nusa Tenggara	22.322	34.097	4.482	23.841	5.177
Eastern Indonesia	45.012	6.387	0.211	12.835	35.787
Indonesia	39.487	26.444	14.921	3.687	4.645

Source: ICA, 2018

One factor contributing to the growing oversupply condition is implementing a predatory pricing strategy. This list of possible reasons for different policy recommendations concerning predatory pricing is partial. It is clear that many diverse factors play a role in presenting some policy conclusions, and it is therefore important to develop a comprehensive framework for comparing and evaluating alternative approaches to the problem of predatory pricing. Each relevant factor we have noted is incorporated in the decision-theory framework six developed here. The analytical structure we suggest will clarify precisely how these various factors and assessments enter into formulating policies towards predatory pricing. Moreover, as we proceed, it will become clear that this structure also provides a framework for evaluating alternative regulations in other antitrust areas. In designing policies against predatory pricing, one is faced with the difficult task of inferring long-term market outcomes from observable short-term behaviour and short-term market conditions. Any such conclusion entails uncertainty and hence the possibility of error; assessments of long-term considerations must be "speculative and indeterminate."<sup>17</sup> However, such judgments are necessary because the essence of predatory pricing is the presumed predator sacrifice of short-term gains for greater long-term gains. PT Conch Cement Indonesia allegedly carried us out. In just four years, Conch Cement gained a market share of 4.6 per cent and became the fourth largest in Indonesia. Conch Cement targets the Eastern Indonesia market, which was originally only reached by the majority by PT Semen Indonesia Tbk (through PT Semen Tonasa) (Indonesian Cement Association, 2018).

The increase in cement sales performance in Indonesia is influenced by the performance of cement production in Indonesia. The improvement in the performance of human resources supports this increase. This is in line with the opinion of (Fitria et al., 2019), who claimed that organizations today cannot succeed without the role of human resources to contribute to the mission and survival of the organization. Cement companies, especially those in South Sulawesi (PT. Semen Bosowa and PT. Semen Tonasa), together with the Group of Semen Indonesia, have developed a knowledge management system and streamlined the workforce to be more professional.

Working conditions in a cement factory have a high enough work intensity and health risk. Work intensity consists of different dimensions: speed and effort at work (Carolina, 2016), time demands (longer working hours), emotional demands (level of work



stress) and demands for larger work or workload, high work speed, tight deadlines or insufficient time to complete a job (Čehovin Zajc and Kohont, 2017), role overload, time demands, and working hours (Jiandong S and L, 2022).

Cement companies in Indonesia strive to optimize all sources of operating income and professional and productive HR management and development to improve company performance. Meanwhile, from the business side, the companies aim to improve performance to support long-term targets to meet market share and market expansion. The support from 1,282 employees of PT. Semen Tonasa and 884 employees of PT. Semen Bosowa, accompanied by high work productivity, is expected to support the company's operations in maintaining product supply in the domestic market, even meeting cement demand from abroad.

Many factors can affect organizational performance improvement, but this study focuses on the information technology variable. The company considers that employees are the most important and valuable asset. In the cement industry, information technology is a *tool* that plays an important role in creating competitiveness and encouraging growth in company performance. (Tampubolon, 2016) suggest that it is easier for an organization to grow and excel in competition with the existence of information technology, which is a basic need for the organization, which is why it gets a high priority. Information technology in the cement industry is important because it relates to the timeliness and correctness of providing the information users need. The development of information technology needs to be supported by many factors expected to give the success of the information system itself, which is reflected in the satisfaction of users of information technology. In addition, information technology has become the primary choice in creating an information system for an organization that is strong and capable of creating a competitive advantage during increasingly dynamic competition.

According to (Abrego et al., 2017), technology significantly improves organizational performance. Research findings of (Appiahene et al., 2018) also suggested that information technology plays an important role in increasing company productivity. Research by (Kusuma and Wahana, 2023) also shows that information technology increases work motivation to improve company performance.

(Halawi, 2018) prove that organizational commitment affects the financial performance of banking companies. Studies from (Harningrum and Aisyah, 2021) show that work motivation has a significant impact on employee performance, organizational commitment variables have a significant impact on employee performance, and work motivation and organizational commitment have a significant effect on employee performance. However, the results (Mekta, 2017) show a negative impact of organizational commitment on employee performance.

(Michael's, 2016), empirical evidence shows that motivated employees will make better organizational performance. From the study of (Julianry et al., 2018), motivation has a negative effect on employee performance but has a positive impact on organizational performance. Based on the analysis, the writer constructs a research model including the direct impact of information technology on organizational commitment, work motivation, and work performance, as well as an indirect effect of information technology on work performance through organizational commitment and motivation. This research focuses on South Sulawesi's cement companies, namely PT Semen Tonasa and PT. Bosowa Cement.



The novelty of this study is to examine the relationship between Information Technology, Organizational Commitment and Work Motivation variables on organizational performance, which is analyzed using the SEM model in several cement industries in Indonesia. Previous studies generally used statistical models such as linear regression, path analysis and chi-square. Still, researchers tried the SEM approach to examine these variables to provide results that show the relationship between each variable.

## **THEORETICAL REVIEW**

**Organizational Performance Concept.** Performance conditions must be known and informed to certain parties to determine the level of demand for an agency related to the vision carried out by an organization and to understand the positive and negative impacts of an operational policy taken. According to the Big Indonesian Dictionary, performance is something to be achieved, the achievements shown and the ability to work. Performance uses management to periodically assess an organization's and its employees' operational effectiveness based on predetermined goals, standards and criteria. With performance, the organization and management can find out the success and failure of its employees in carrying out the mandate received.

Companies must meet society's values, interests, and performance expectations. The ultimate goal of any society is to ensure sustainable growth in the current context of globalization, considering the new standards imposed by the requirements of sustainable development. The diversity of definitions in the scientific literature creates ambiguity rather than clarity in the definition shown. As far as we search, we will not find a uniform and unambiguous definition of performance. The definition of performance needs to be more specific and specific. In this case, experts consider that for the definition of organizational performance, we must consider all of the activities occurring in different entities and the interests of those involved as the entity's objective fluctuating, controversial, and contradictory performance is subjective.

Performance refers to the company's achievement level in a certain period. According to (Sedarmayanti, 2017), the objectives of Human Resource Management are as follows: (1) Provide advice to management on human resource policies to ensure the organization/company has highly motivated and high-performing human resources equipped with the means to deal with change. (2) Maintain and implement human resource policies and procedures to achieve organizational/company goals. (3) Overcome crises and difficult situations in the relationship between employees so that there is no interference in achieving organizational goals. (4) Provide a means of communication between employees and organizational management. (5) Assist in developing the overall direction and strategy of the organization/company by considering the human resource aspect. (6) Assist and create conditions that can assist line managers in achieving goals. Company performance is a very decisive thing in the development of the company. The company's goal to continue to exist, earn profits, and grow can be achieved if the company has good performance. The company's performance can be seen from the sales, profit, rate of return on investment, turnover rate, and market share (Sihombing and Batoebara, 2019).

(Indraswono, 2021) used three indicators to measure business performance: efficiency and growth. And profits. Company performance is a problematic multi-aspect phenomenon; the literature shows that quantitative and qualitative indicators have



limitations and are recommended to be used interchangeably-examples of quantitative measurements such as ROI, profit, sales, etc. ROI is usually employed to identify how big the company's achievement is in a certain period, which results from comparing income before tax with the total. Qualitative measurement, often called performance indicators, is a performance measurement using a specific scale approach on performance variables such as knowledge and business experience, ability to offer quality products and services, capacity to develop new processes and products, ability to manage and work in groups, labour productivity, and corporate responsibility to the environment.

Performance measurement can also be defined as the process of quantifying the efficiency and effectiveness of past actions. Performance measure can be defined as a parameter used to quantify the efficiency and effectiveness of past activities. Another statement regarding performance management is an approach to creating a shared vision of the goals and objectives of the organization, helping each employee to understand and recognize the magnitude of their contribution to improve performance, both individually and in organizations.

It is necessary to measure management performance to ensure that the resources (inputs) are used effectively and efficiently to achieve the company's goals. According to (Likumahwa, 2016), performance measurement is a process of recording and measuring the achievement of the implementation of activities to achieve the mission through the results displayed in the form of products, services, or a process. In the context of optimizing the company's performance, it is necessary to have strategies for designing an organizational performance measurement system to carry out its core capabilities to determine the successes and failures that arise. To meet these performance improvement needs, it is necessary to establish a management system to communicate goals and objectives.

**Information Technology.** Information technology refers to all forms of technology used to create, store, transform and use information in all its forms. Presentation of reports based on information technology or human resource information systems is defined as output that provides reporting information for management regarding human resources, as mentioned by (McLeod and Schell, 2017).

A computerized human resource information system combines an organizational network of related human resource data, information, services, databases, equipment and transactions. Such a system can be described as 'e-Human Resources. Human resource information technology is expected to produce speedy, accurate and efficient information to achieve organizational goals.

**Organizational Commitment.** (Yunus, 2019) provide a definition, "organizational commitment is the degree to which employees believe in and accept organization goals and desire to remain with the organization". (Candrakusuma and Jatmiko, 2017) Calls work commitment is another term for organizational commitment. According to him, organizational commitment is an important behavioural dimension that can be used to assess the tendency of employees to remain members of the organization. Organizational commitment is the identification and involvement of a person who is relatively strong in the organization.

From some of these definitions, it can be concluded that organizational commitment is a psychological bond of employees in the organization characterized by the presence of (1). Strong belief in and acceptance of organizational goals and values, (2). Willingness to seek to achieve organizational interests, (3). Strong desire to maintain position as a



member of the organization. (Yunus, 2019) suggests that there are 3 (three) components of organizational commitment: (1). Affective Commitment. This occurs when employees want to be part of the organization because of an emotional bond. (2). Continued Commitment. It appears when employees remain in an organization because they need a salary and other benefits or cannot find another job. (3). Normative Commitment. Arises from the values in employees. Employees remain members of the organization because of the awareness that commitment to the organization is something that should be done.

**Work motivation.** Referring to the opinion (Yunus, 2019) that motive is defined as the self-urge to do activities that end with self-adjustment, the adjustment itself is to satisfy the motive. Motivation can be defined as a process. Knowledge of the process is constructive in doing and observing people's behaviour. Motivation can also be interpreted as an act of inner energy, a person marked with the emergence of feelings and reactions. It can be concluded that work motivation is a condition that moves people and creates enthusiasm or work motivation to carry out activities and is expressed in the form of a stiff or weak effort towards a goal where the strength and weakness of a worker's work motivation will determine the size of his achievements.

The main benefit of motivation is to create a passion for work so that work productivity increases. Meanwhile, the benefit of working with motivated people is that the job gets done right. This means that the work is completed according to the correct standard and within the time scale that has been determined, and people enjoy doing the work. Something that is done because there is a motivation that drives it will make people happy to do it. People will also feel appreciated/recognized because work is precious for motivated people so that that person will work hard. This is understandable because the drive is so high that they produce according to the targets they set. His performance will be monitored by the individual concerned and will not require too much supervision, and his fighting spirit will be high.

**Conceptual framework.** Organizations and employees are two elements that need each other and cannot be separated from one another. Employees have the potential to make an excellent contribution to the organization. Therefore, human resources (HR) are one of the important production factors in the organization's efforts to achieve its goals. Every organization, of course, always strives to get human resources who have the skills. Organizations always try to improve the performance of their employees, but on the other hand, they still pay attention to other factors. Likewise, information technology is the driving force in achieving organizational goals (organizational commitment, work motivation, and organizational performance).

By providing motivation, employees are encouraged to be enthusiastic at work and provide all the expertise they have to achieve the goals set by the company. A motivated employee will continue to try and do a good job for the company's success. Another factor that influences organizational commitment is the work environment.

For employees to be positive in their work, a healthy and conducive work environment must be created so that they strive to achieve organizational goals. The work environment in the company can affect employees' emotions. Suppose an employee likes the work environment in which he works. In that case, the employee will feel at home in his workplace to carry out activities so that work time is used effectively and optimizes employee performance. The work environment includes working relationships formed between fellow employees, working relationships between subordinates and superiors, and the physical environment in which employees work. Job satisfaction is another factor

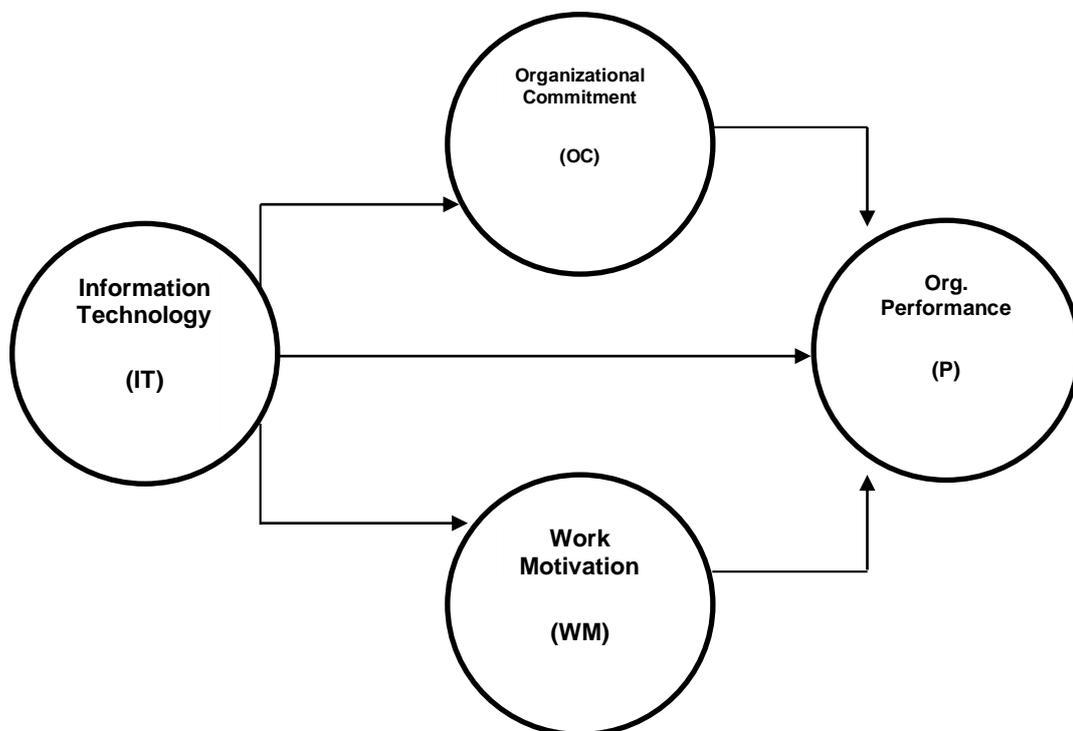


influencing organizational commitment besides motivation and work environment.

Job satisfaction is individual because employees have different satisfaction levels according to the prevailing values. One way to find out what is expected and needed by employees is to determine the level of job satisfaction of employees. Job satisfaction refers to assessing a person or employee and the attitude of employees towards their work. It is related to the work environment, type of work, relationships between co-workers, and social relations at work. So, the higher employee job satisfaction, the organizational commitment will increase.

Organizational commitment is a situation where a person sided with a particular organization and desired to maintain that organization. In developing employees, the commitment aspect needs to get more attention. Because of employees' commitment to the company, it is hoped that the quality employees owned by the company will survive, even though there is an opportunity to leave the company.

By the above concept, the performance formulation shows that the work achieved by individual human resources is primarily determined by attaining a large quantity of work, quality work, efficient and targeted work results and work effectiveness by the benefits achieved. Performance is a periodic assessment of an organization's and its personnel's operational effectiveness based on previously determined goals, standards and criteria.



**Figure 1.** Research Model

**Research Hypothesis.** The research hypothesis is a statement that still has a weak level of truth. For that, it still has to be tested using specific techniques. Hypotheses are formulated based on theories, conjectures, personal or other people's experiences, general impressions, and conclusions that are still very weak. The hypothesis can also be

interpreted as a statement about the state of the population, which will be verified using data or information collected through the sample.

The performance formulation from research model has hypothesis (1) Information technology has a positive and significant effect on organizational commitment to cement industry companies in South Sulawesi, (2) Information technology has a positive and significant effect on work motivation in cement industry companies in South Sulawesi, (3) Information technology has a positive and significant effect on organizational performance in cement industry companies in South Sulawesi, (4) Organizational commitment has a positive and significant effect on organizational performance in cement industry companies in South Sulawesi (5) Work motivation has a positive and significant effect on organizational performance in cement industry companies in South Sulawesi, (6) Information technology has a positive and significant effect on organizational performance through the variable organizational commitment, and (7) Information technology has a positive and significant effect on organizational performance through the variable of work motivation.

## METHODS

The population in this study are two cement companies in South Sulawesi, namely PT Semen Tonasa and PT Semen Bosowa Indonesia. The company's selection was based on scientific considerations and researchers' ease of collecting primary and secondary data. The population in this study was limited to employees with work experience above ten years, namely 1,504 employees.

The sampling technique used a questionnaire to the leaders and employees of PT Semen Tonasa and PT Semen Bosowa. The sample selected from the population is considered to represent the existence of the population. The sampling technique using the Slovin method The criteria for determining the sample used in this study are the leaders and employees of PT Semen Tonasa and PT Semen Bosowa. Every organizational leader must ensure that all employees can accept technology in the workplace as a tool to improve their performance. Furthermore, researchers chose respondents limited to employees with more than ten years of work experience.

From this information, the following research samples can be obtained by determining the number of samples determined according to the Slovin model (Susanti et al., 2019).

$$n = \frac{N}{1 + NE^2} \dots \dots \dots (1)$$

Sampling is as important in qualitative research as it is in quantitative research. Qualitative researchers cannot observe everything about a group or place that may be relevant to the research problem. Researchers must try to get subjects from the people or communities under study who are believed to represent everything they research. Qualitative researchers choose topics they think are best suited to provide information, views, and a broad understanding of what is being studied.

In determining the sample of this study according to the solvency equation, the number of samples (n) can be determined by assessing the population (N), where the total population in this study is 1,504 employees. The number of population is divided by the



number of population multiplied by the number of present allowances (E) (researchers use 10 per cent).

$$n = \frac{1.504}{1+(1.504)(0.10)^2} \dots \dots \dots (2)$$

$$n = 93.77 \text{ sample}$$

So, the number of samples used in this study is 94 respondents.

*The structural Equation Model* tests the hypotheses using the Smart- PLS Version 3.0 program. SEM is a method of multivariate statistical analysis. Processing SEM data is different from processing regression data or path analysis. SEM data processing is more complicated because measurement and structural models build SEM. In SEM, there are three activities simultaneously, namely checking the validity and reliability of the instrument (confirmatory factor analysis), testing the relationship model between variables (path analysis), and obtaining a suitable model for prediction (structural model analysis and regression analysis). A complete model consists of a measurement and structural or causal models. The measurement model is carried out to produce an assessment of the validity and discriminant validity, while the structural model is a model that describes the hypothesized relationships. To process SEM data more efficiently, you can use the help of statistical software.

Using SEM, an attempt was made to examine causal relationships, including implicit variables and their relationship with the relevant indicators (explicit variables). First, the dependent and independent variables and their indicators as explicit variables are checked separately to ensure that appropriate indicators are considered for the implicit variable. Considering that data analysis based on fit indices and according to the presented reasoning in SEM is the basis for making decisions on the accuracy of the proposed hypotheses. All indices were calculated. The model of the relationship between Information Technology indices (TI) as the dependent variable and the dependent variable encompassing Organizational Commitment (OC), Work Motivation (WM), and Org. Performance (P).

**RESULTS**

Hypothesis testing tests theories based on empirical evidence in the field. From the results of data processing, it can be seen the magnitude of the relationship between exogenous and endogenous variables, both direct, indirect and total relationships and the significance test significance as shown in **Table 2**.

**Table 2.** Structure of Direct Influence

Construct	Prediction	Influence Direct	P Value	Information	Decision
Information Technology (IT) --> Organizational Commitment (OC)	significant	0.160	0.026	Positive and significant	accepted
Information Technology (IT) --> Employe Work Motivation (WM)	significant	0.115	0.059	insignificant	rejected
Information Technology (IT) --> Organizational Performance (P)	significant	0.159	0.013	Positive and significant	accepted



Organizational Commitment (OC)---> Organizational Performance (OP)	significant	0.163	0.011	Positive and significant	accepted
Employee Work Motivation (WM) ---> Organizational Performance (OP)	significant	0.475	0.000	Positive and significant	accepted

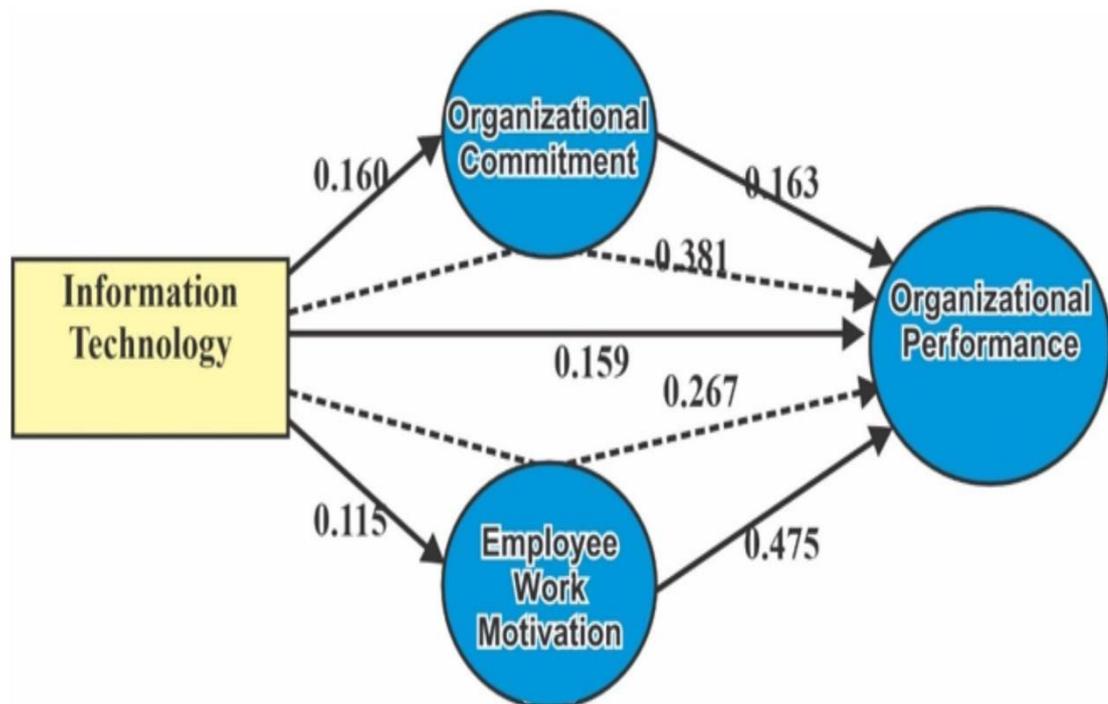
Source: Results of data processing

Then, the structure of the indirect influence of the relationship of each variable can be seen in **Table 3**.

**Table 3.** Indirect influence structure

Construct	Prediction	Influence No Direct	P Value	Information	Decision
Information Technology (IT) --> Organizational Performance (OP) Through Organizational Commitment (OC)	significant	0.381	0.014	Positive and significant	accepted
Information Technology (IT) --> Organizational Performance (OP) Through Employee Work Motivation (WM)	significant	0.267	0.025	Positive and significant	accepted

Source: Results of data processing



**Figure. 2.** Final SEM model describing the direct effects between variables

Source: Results of data processing



## DISCUSSION

**The effect of information technology on organizational commitment in cement companies in South Sulawesi.** The integrated information technology system facilitates *online communication* between the company's branch offices, factories, and warehouses to ensure adequate inventory levels, timely delivery, and effective use of resources. Utilization of technology in distributing data accurately, efficiently and effectively through the design, development, implementation, and management support of computerized-based information systems. Some indicators are used to measure the presence of IT in the company to improve company performance through indicators of time efficiency in completing tasks, authority in accessing data, punctuality in completing tasks, and ease of operating the system.

The hypothesis states that information technology positively and significantly affects organizational commitment. The results of testing the hypothesis about the influence of information technology on organizational commitment are indicated by the coefficient value of 0.160 and p-values of 0.026, in line with the hypothesis statement, which means a significant influence, indicating that information technology directly influences organizational commitment. The results of this study indicate that the better the application of information technology in the management of the company, the more successful the implementation in the management of the company by increasing the company's commitment so that it affects the company's goals. Thus, based on the results of empirical testing, the hypothesis is declared **accepted**.

(Fenty, 2016) finds a positive yet insignificant effect of organizational commitment in UM Palembang. Astrina elaborates on the inconsistent establishment of reward and punishment in this sense. She describes promising rewards for undesirable achievements and punishment for unwanted side effects. Reward systems and compensation packages only secure employee commitment when viewed as consistent, fair and equitable. When they disagree with the performance management system, they will likely be unwilling to participate actively in the process where they do not see any value.

This paper also provides some empirical evidence for the developed framework. Regarding relationship management, the deployment of information technology in organizations has a distinct effect on the relationship atmosphere and value creation. These findings provide new insights into the role of information technology in value creation in business-to-business relationships.

The research and empirical evidence above shows that this research variable implies that applying good information technology in the company will maximize the implementation of commitments to improve company performance. Increased organizational commitment will maintain compliance in the presentation of reliable work reporting. Employees with a high organizational commitment will use the information to compile work reports to be relatively more precise. High commitment makes individuals more concerned with the organization than personal interests and trying to make the organization better.

**The effect of information technology on work motivation in a cement company in South Sulawesi.** The testing of the hypothesis about the influence of information technology on employee work motivation is indicated by the coefficient value of 0.115 and p-values of 0.059, not in line with the hypothesis statement, which means an insignificant effect, indicating that information technology does not have a direct impact



on employee motivation. The results of this study indicate that better application of information technology in the company does not guarantee an increase in employee motivation. Thus, based on the results of empirical testing, the hypothesis is **rejected**.

This study supports the productivity theory that high productivity depends on or is determined by technical and human factors. Technological factors are everything other than human performance that can affect hourly output, including the development of Information Technology. If employees work with good equipment, they will work harder than improvised equipment, increasing the company's productivity. Technological advances, including increasingly automated and sophisticated equipment, will be able to support production levels and influence humans in doing work, but adopting these technological developments requires an understanding and knowledge to be able to run it.

However, this finding differs from research (Nuskiya, 2018), which shows that information technology significantly impacts employee performance. Many employees agree it reduces job error rates and increases job satisfaction and motivation. Banks are using IT applications as competitive tools to enjoy competitive advantage, and they are trying to adopt new applications to carry out their banking activities efficiently.

This research variable implies that an increase in information technology will not affect increasing employee motivation. The understanding of information technology from employees still needs to be higher so that some employees find it easier to work using IT, so this does not increase employee motivation.

**The effect of information technology on organizational performance in cement companies in South Sulawesi.** The hypothesis testing the influence of information technology on organizational performance is indicated by the coefficient value of 0.159 and p-values of 0.013, which is in line with the hypothesis statement, which indicates that information technology directly influences organizational performance. This result indicates that the better the use of information technology in company management will further improve organizational performance. This emphasizes that information technology is much needed in implementing the company's management to improve organizational performance. Thus, based on the results of empirical testing, the hypothesis is declared **accepted**.

The Research Result is consistent with the findings of research conducted by (Croteau et al., 2017), which revealed that technology significantly contributes to improving organizational performance. The same thing was also expressed by (Yunus, 2019), who stated that increasing productivity is the primary role of information technology (IT) in the lodging industry, while information resources have long played an important role in conducting successful lodging operations.

This research variable implies that applying effective technology will improve organizational performance. Information technology plays a role in providing helpful information for decision-makers within the organization, including reporting, so it supports the decision-making process more effectively. Utilizing Information Technology (IT) can support various needs, and the development of organizations, individuals and companies will undoubtedly bring positive benefits. Information Technology (IT) for positive things will certainly get much support from various circles.

**The effect of organizational commitment on organizational performance in cement companies in South Sulawesi.** The hypothesis about the impact of organizational commitment on organizational performance is indicated by the coefficient value of 0.163 and p-values of 0.011, in line with the hypothesis statement, which means a significant



effect, indicating that organizational commitment directly influences organizational performance. The results of this study indicate that the better the organizational commitment to managing the company, the more it will improve organizational performance. This confirms that organizational commitment is needed to implement company management to improve performance. Thus, based on the results of empirical testing, the hypothesis is declared **accepted**.

Quality of work life expresses the importance of respect for humans in the work environment. Thus, the important role of the quality of work life is to change the organizational climate so that, technically and humanely, it leads to a better quality of work life (Yunus, 2019).

The hypothesis testing above is consistent with the findings of research conducted by (Halawi, 2018). Organizational commitment affects the financial performance of banking companies. However, it differs from (Mekta, 2017) results, which show that organizational commitment has a negative effect on employee performance.

This research variable implies that effective organizational commitment will increase organizational performance. Organizational commitment reflects an individual's attitude towards the organization where they work, where the benefits of organizational responsibility for the company are higher performance (quality of work), higher productivity, or even both.

**The effect of work motivation on organizational performance at a cement company in South Sulawesi.** The hypothesis testing the impact of work motivation on organizational performance is indicated by a coefficient value of 0.475 and p-values of 0.000. This is in line with the hypothesis statement, which means a significant effect, indicating that work motivation directly influences organizational performance. The results of this study indicate that the better the employee's work motivation, the higher the organizational performance. This confirms that work motivation is needed to implement company work to improve organizational performance. Thus, based on the results of empirical testing, the hypothesis is declared **accepted**.

This is also in line with the results of (Michael, 2016) research, which shows that motivated employees will make better organizational performance.

This research variable implies that compelling work motivation will increase organizational performance. Work motivation is the driving force for employees who create enthusiasm or work encouragement to carry out activities. It is expressed as a hard or weak effort towards a goal where the strength and weakness of the employee's work motivation determine the size of their achievements.

**The influence of information technology on organizational performance in cement companies in South Sulawesi through organizational commitment.** The hypothesis testing the influence of information technology on organizational performance is indicated by a coefficient value of 0.381 and p-values of 0.014, in line with the hypothesis statement, which means a significant effect, indicating that information technology indirectly affects organizational performance through organizational commitment. The results of this study indicate that organizational commitment can mediate the strengthening of information technology to improve organizational performance. This explains that effective organizational commitment is needed to improve information technology to improve work quality and productivity, which will impact improving organizational performance. This emphasizes that organizational commitment is needed in implementing the company's work to improve information technology and



organizational performance. Thus, based on the results of empirical testing, the hypothesis is declared **accepted**.

In line with the results of research conducted by (Normala, 2020) found evidence that information technology has a positive effect on organizational commitment. Sustainability and achievement of company goals also depend on the application of information technology developed by the company, which supports the research results of (Yunus, 2019), which states that the dissemination of information technology has a positive impact on improving company performance. These findings provide new insights about the role of information technology in value creation in business-to-business relationships.

Increasing organizational commitment will further increase employee motivation to work, contribute and innovate to improve company performance and always take advantage of information technology while maintaining compliance. In presenting reliable work reports, employees with high organizational commitment will use the information to compile work reports to be relatively more precise. High commitment makes individuals more concerned with the organization than personal interests and trying to make the organization better.

**The effect of information technology on organizational performance in cement companies in South Sulawesi through work motivation.** Information technology's influence on organizational performance is indicated by a coefficient value of 0.267 and p-values of 0.025, in line with the hypothesis statement, which means a significant effect, indicating that information technology indirectly affects organizational performance through work motivation. The results of this study indicate that work motivation can mediate the strengthening of information technology to improve organizational performance. This explains that effective organizational commitment is needed to improve information technology to improve work quality and productivity, which will impact improving organizational performance. This confirms that the role of work motivation is needed in the implementation of company work to improve information technology and organizational performance. Thus, based on the results of empirical testing, the hypothesis is declared **accepted**.

This is in line with the results from (Adaeze et al., 2019), which find that IT improves a company's efficiency by developing automated processes to remove the employees' burden. IT gives employees remote access to their company's electronic network to work from home or on the road. This accessibility allows the employees to increase their productivity because they can still get work done, even when not physically present. IT is essential to the business world, giving organizations the resources to communicate quickly and effectively. The study, therefore, concludes that IT has a positive effect on organizational performance.

Strengthening the work motivation of each employee to innovate and utilize information technology correctly will certainly improve organizational performance. Utilization of Information Technology (IT) can support various needs and the development of organizations.

## CONCLUSIONS

Information technology has a positive and significant effect on organizational commitment. This hypothesis statement was proposed by referring to the results of research conducted (2020), which found evidence that information technology positively



affects organizational commitment. Sustainability and achievement of company goals also depend on the application of information technology developed by the company. Information technology does not have a significant effect on employee work motivation. This indicates that the improvement of information technology does not affect the increase in employee motivation. This is because not all employees can master the use of information technology, or there are still many employees who do not understand and can adopt the use of information technology used by the company.

Information Technology has a positive effect on organizational performance. This indicates that information technology is necessary for every organization. Effective and efficient information technology is very important for management to plan, organize, implement, direct and supervise all organizational performance. Organizational commitment has a positive effect on organizational performance. This indicates that a good organization must pay attention to work design and organizational commitment to achieve organizational goals effectively and efficiently. Work motivation has a positive and significant effect on organizational performance. This explains that the better employees' motivation, the better organizational performance. Employee work motivation plays an important role in improving organizational performance.

Information technology positively and significantly affects organizational performance through organizational commitment. This explains that increasing information technology will impact improving organizational performance, and organizational commitment can strengthen the relationship of information technology with organizational performance. Information technology positively and significantly affects organizational performance through work motivation. This explains that increasing information technology will impact improving organizational performance, and work motivation can strengthen the relationship between information technology and organizational performance.

**Suggestion.** The conclusions and implications of the research, the following suggestions can be given:

Some are different from the hypotheses and theoretical concepts proposed, so it is highly expected that the company can formulate organizational policies in policy-making, decisions and business development programs, as well as improve employee performance. This research is expected to provide an impact on the company's services to the community, both within the company and outside the company environment, to create an efficient and effective company.

Finally, this study has some potential limitations. Due to the absence of cooperation from commercial companies in filling out the questionnaire, the authors only obtained data on five commercial companies, provided that their names were not mentioned; however, if more companies had collaborated with the authors on this study, the likelihood of generalizing study results would increase given the fact that good generalization requires data on large populations. In addition, large population data can improve the accuracy of study results.

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