

**EFFECT OF BUDGET PARTICIPATION ON THE
EFFECTIVENESS OF VERTICAL INFORMATION SHARING,
PSYCHOLOGICAL CAPITAL AND
MANAGEMENT COMMITMENT AND ITS IMPACT ON
MANAGEMENT PERFORMANCE**

ABSTRACT

Aims: Internal problems of manufacturing companies as business entities also still need to be resolved, especially related to budgeting participation, vertical information sharing, psychological capital, manager commitment so that they have an impact on the performance of company managers. This research aims to prove empirically what determines the performance of managers of manufacturing companies listed on the Indonesia Stock Exchange (BEI).

Study design: The research uses the basis of Goal Setting Theory to elaborate on the relationship between goals set and performance achievement

Place and Duration of Study: Research data was collected through questionnaires and interviews, which were carried out on 108 managers representing each manufacturing company listed on the Indonesia Stock Exchange (BEI).

Methodology: The population is managers from 183 manufacturing companies listed on the IDX as of December 31 2021. From this population, a sample of 124 managers from 108 manufacturing companies listed on the IDX was obtained. Data were analyzed using Structural Equation Modeling (SEM) statistical techniques.

Results: The research results show that psychological capital, manager commitment, and the effectiveness of vertical information sharing are influenced by budgeting participation. The test results also prove that budgeting participation, psychological capital, manager commitment have an influence on manager performance. However, the effectiveness of vertical information sharing does not have a significant positive effect on manager performance. The findings of this research add to the limited research literature on the elaboration of performance determination in manufacturing companies.

Conclusion: The manufacturing industry has a very important role in the national economy. The manufacturing industry is the main support for economic growth or a source of Gross Domestic Product (GDP), employment, increasing export value and increasing investment flows. Elaboration of the variables that influence the performance of managers in manufacturing companies listed on the IDX is something that is of concern to both researchers and practitioners in the manufacturing industry.

Keywords: budgeting participation, psychological capital, effectiveness of vertical information sharing, manager commitment, and manager performance.

1. INTRODUCTION

The industrial revolution in its journey always depends on human ability to produce goods better with the help of supporting instruments (Alaloul, et al, 2019). Revolution 4.0 also aims to make manufacturing systems more feasible and sustainable (Carvalho, et al, 2018). In line with the era of the Industrial Revolution, the performance of company business unit managers is an important element in ensuring the sustainability and business growth of issuers listed on the Stock Exchange (Setia, 2019). Bambang Brodjonegoro as Minister of Research and Technology in Catriana (2019) stated that the performance of the Indonesian manufacturing industry is at alert level. The national manufacturing industry has not been stable and has tended to decline since 1998 until now. The role of the manufacturing industry is vital for Indonesia to progress, but unfortunately it has not been successfully developed and revitalized to create added value for the economy. Efficient resource allocation decisions and useful for designing incentive-based performance budgets (Rosdini 2016).

Apart from budget variables, a factor that influences manager performance is the effectiveness of vertical information sharing. The same thing was also found by (Yuan et al, 2019) that higher vertical information sharing can improve performance by reducing communication distance and improving company services. The relationship between performance and vertical information sharing for organizations needs to always be considered and encouraged through comprehensive communication between subordinates, superiors and shareholders. The exchange of information between subordinates and leaders in the budget discussion process is very important and provides many benefits for individual and organizational performance. To improve performance, many organizational leaders use budget participation and share information with subordinates. Thus, budget participation can provide an opportunity to share relevant information with the ultimate goal of improving performance.

Performance is also closely related to psychological capital factors, as research findings by Akbaba & Altındağ (2019) by conducting a survey on family companies in Turkey found a significant influence of psychological capital and company climate on company performance. Several other researchers in the organizational behavior literature also found a positive relationship between psychological capital and managerial performance (Luthans et al. 2021). Individuals who have psychological capital have a high probability of success in every job they do. The higher the psychological capital, the higher the performance achieved (Luthans et al. 2021).

Apart from influencing performance, psychological capital is also related to the budgeting process. Covaleski et al. (2003) stated that although companies provide opportunities for employees to participate in the budget setting process, the psychological interests of shareholders, shareholder assignments are something that must be fulfilled and are believed to be achievable. Strong psychological capital can provide optimism in achieving harmony between the company's external and internal interests. Psychology-based research has proposed intervening-variable models, which suggest that an individual's mental state intervenes in the influence of budgeting on performance. Research by Simons & Buitendach (2013) shows that psychological capital is able to mediate budget participation with management performance.

The dominant factor that also influences performance is organizational commitment. Many studies explore the relationship between management performance measurement and management commitment. Focusing on management commitment, Vent et al (2016) examined monetary performance in Mexico and found that management commitment was

significantly related to performance. Gong et al (2009) & Haseeb (2019) also examined the relationship between HRM, commitment and performance. With respondents in China. The study results show that commitment from management has a big influence on performance management. The intervening role of organizational commitment from the relationship pattern of budgetary participation to performance was discovered by Noor & Othman (2004) by providing empirical evidence about the influence of budgetary participation on managerial performance through the role of organizational commitment.

2. MATERIALS AND METHODS

2.1 Materials

2.1.1 Budget Participation

Participatory budgeting is providing opportunities from superiors to subordinates to be involved in the company's budgeting process and provide information to each other. Usually, lower level managers have more and better information about the condition of a business unit or division, such as information about costs and production capabilities, compared to upper level managers at head office (Rosdini, et al, 2017). Participatory budgeting by providing opportunities to exchange information between superiors and subordinates is rooted in economic theory, psychology and sociology. The contracts that occur between superiors and subordinates in participatory budgeting are economic, psychological and sociological contracts. (JF Shields & Shields, 1998). The level of trust of business unit managers will be high in the form of a psychological contract if they are fully involved in the budgeting process (Rosdini et al., 2017).

2.1.2 Effectiveness of Vertical Information Sharing

Information sharing (information sharing) is a continuous flow of communication between work partners, both formal and informal, and contributes to better planning and monitoring. (Miguel & Brito, 2011). Fawcett, et al., (2019) states that performance can be built through sharing information when companies want to achieve common goals and build employees who are active in work collaboration. So, to establish relationships between employees, open communication is needed, where open communication is caused by the right flow of information within the organization. Vertical information sharing is the sharing of information that involves superiors and subordinates (Parker & Kyj, 2006). Vertical information sharing measured by adopting an instrument developed by Parker & Kyj (2006) namely sharing situation information and sharing operational activity information.

2.1.3 Psychological Capital

Psychological capital can be interpreted from the questions "who are you" and "what will you do to achieve progress. Psychological capital according to (Luthans et al., 2021) is an individual's positive psychological state and is an ability that can be trained and developed. The higher a person's psychological capital, the higher the employee's emotional commitment to the organization. Psychological capital is a big capital for companies in achieving their goals. (Etebarian, et al., 2021). In this research the psychological capital variable is measured using instruments Venkatesh & Blaskovich, (2010) that is *self efficacy, hope, optimism, and resilience*.

2.1.4 Management commitment

Commitment is related to employee turnover, committed employees find it difficult to leave or cause harm to the organization. Commitment depends on influencing psychological aspects such as employee conditions and behavior (Meyer & Allen, 1991). Sheldon, (1971) defines

commitment as a positive evaluation of the bond between an individual (employee) and a manager. Commitment is the key to superior performance and strategy development for building an organization. Locke et al. (1981) explains commitment as determination to achieve budget goals and persistence in pursuing targets over time. Budget commitment is an individual's encouragement to do something to support organizational success through internalizing budget goals (Wentzel, 2002). Based on Locke et al. (1981), (Wentzel, 2002) then management commitment is measured by level affective, sustainable and normative.

2.1.5 Manager Performance

Performance is the result of work in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Mangkunegara, 2000). Performance as an illustration of the level of achievement of the implementation of an activity/program/policy in realizing the goals, objectives, mission and vision of the organization as stated in the formulation of the strategic scheme (Rohman, 2009). Management competency describes management performance in the assessment process. Organizations can be identified from the manager's ability to demonstrate management performance, which has several competencies, namely (1) Manager competency describes management success, (2) This competency is one of the program performance criteria. (Clinton & Hunton, 2020).

2.1.6 Budget Participation and Effectiveness of Vertical Information Sharing

Subordinate participation in the budget setting process provides opportunities for superiors to be able to access local information which allows subordinates to communicate the personal information they have (Baiman, 1982). Study (Parker & Kyj, 2006) Participation in budget preparation will be better with vertical information sharing. Participation and budget preparation will be good and in accordance with effective communication, if viewed from the communication aspects (Maria et al., 2019).

2.1.7 Budget Participation and Psychological Capital

Increasing employee participation in the budget preparation process positively influences the psychological capital of each employee involved (Venkatesh and Blaskovich 2012). Soleha et al. (2013) found a relationship between budget preparation participation on psychological capital and job relevant information as an intervening variable.

2.1.8 Budget Participation and Management Commitment.

Participation in budget preparation creates greater organizational commitment (Rosidi 2000; Chong and Chong 2020). Wiryanata (2016) found that the better budget participation, the more commitment will increase. Locke et al., (1988); Rhodes and Steers, (1981) found that budget participation will increase the commitment of all members of the organization, so that budget participation will lead to increased and clearer organizational commitment.

2.1.9 Budget Participation and Management Performance.

Ayu (2011) found that participation in budget preparation had a positive effect on managerial performance. The higher the degree of involvement in the budget preparation process, the higher the resulting managerial performance. A study of managers from South Korea who work and are involved in the budget preparation process in controlled companies shows that there is a strong relationship between participation in the budget preparation process and managerial performance. The same results were also found by Surya & Devie, (2013) and Sugiyanto & Subagiyo, (2005) that budget participation influences manager performance. Further Tarigan & Christian, (2015) also found that participatory budgeting had an effect on managerial performance.

2.1.10 Effectiveness Vertical Information Sharing and Management Performance.

Lustiantoro, et al., (2018) using SLR found that there was a relationship between information sharing variables and performance. Magner, Welker, & Cambell, (1996) who in his research also found that sharing information by subordinates resulted in more realistic budget plans and ultimately resulted in higher performance. Furthermore, Murray (1990) also found that information disclosure influences the development of strategies that improve subordinate performance.

2.1.11 Psychological capital and performance management

Gooty et al. (2009); Luthans and Avolio (2009) found that psychological capital has a positive influence on managerial performance. Study Venkatesh & Blaskovich, (2010) also proves empirically that psychological capital has a positive influence on managerial performance. Study Simons & Buitendach, (2013), Etebarian et al., (2021) also supports that performance is strongly influenced by psychological capital factors. Memili et al (2020) using a cross-sectional research design, a survey of hotels in Turkey found that psychological capital influences company performance.

2.1.12 Management commitment and Management Performance.

Vent et al (2016) found that management commitment was significantly related to performance. Gong et al (2009) and Haseeb (2019) also examined the relationship between manager commitment and performance. With respondents in China. The results of the study show that the commitment of managers greatly influences the manager's performance. Christine, et al (2019) also found consistent results that environmental management strategies and effective management commitment will help companies improve financial performance and also improve environmental performance. Magner et al., (1996) also states that managers who have a high commitment to budget goals will seek to interact with people who can provide insight into their work environment, performance goals, task strategies, and other issues that have an important impact on their performance.

2.1.13 Budget Participation, Effectiveness of Vertical Information Sharing and Management Performance.

Bonache, Marice, & Moris, (2021) found that budgetary participation influenced their job performance through vertical information sharing across hierarchies in the organization. In this case, budget participation can encourage vertical information sharing, which in turn improves employee work performance.

2.1.14 Budget Participation, Psychological Capital and Management Performance

Venkatesh and Blaskovich (2010) found that budget participation had a positive and significant effect on psychological capital. Psychological capital also influences managerial performance. The same findings were also produced by Harahap (2013) and Soleha et al., (2013) that budget participation has an effect on employee psychology and then simultaneously improves employee performance.

2.1.15 Budget Participation, Management Commitment and Management Performance.

Chong & Johnson, (2007) found that subordinates who have influence, negotiate budgets and are involved in preparing the final budget, generally increase commitment to budget objectives and in turn also improve performance. Study (Chong & Chong, 2020) found a relationship between budget participation and manager performance, through commitment to subordinates. Maiga and Jacobs, (2007) found that participation has a significant positive

influence on manager trust and this manager trust variable also has a significant effect on commitment to budgeting goals, which in turn has a positive influence on increasing managerial performance. Riketta, (2002) in his study concluded that a higher level of employee commitment can result in higher motivation, which ultimately results in higher work performance.

Based on the above, the theoretical framework of this research is:

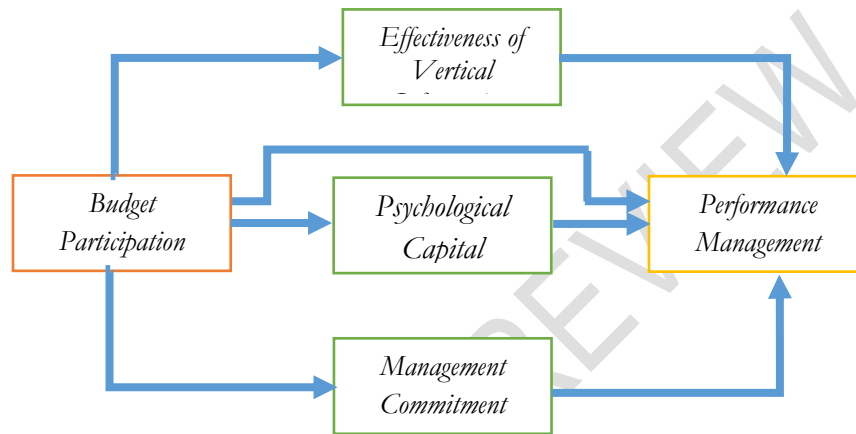


Figure 1.

The influence of Budget Participation on the Effectiveness of Vertical Information Sharing, Psychological Capital and Management Commitment and its impact on Management Performance

2.2 Hypothesis

- Hypothesis 1 : *Budget Participation* has a significant positive effect on the effectiveness of vertical information sharing.
- Hypothesis 2 : *Budget Participations* significant positive effect on psychological capital.
- Hypothesis 3 : *Budget Participations* significant positive effect on management commitment.
- Hypothesis 4 : *Budget Participations* significant positive effect on performance management.
- Hypothesis 5 : The effectiveness of vertical information sharing has a positive effect significant impact on management performance.
- Hypothesis 6 : *Psychological capitals* significant positive effect on management performance.
- Hypothesis 7 : *Management commitments* significant positive effect on management performance.
- Hypothesis 8 : *Budget Participation* has a significant positive effect on management performance through the effectiveness of vertical information sharing.
- Hypothesis 9 : *Budget Participations* significant positive effect on management performance through psychological capital
- Hypothesis 10 : *Budget Participations* has a significant positive effect on management performance through management commitment.

2.3 Research Methodology

2.3.1 Population and Sample

The population is managers from 183 manufacturing companies listed on the IDX as of December 31 2021. From this population, a sample of 124 managers from 108 manufacturing companies listed on the IDX was obtained.

2.3.2 Operationalization of Research Variables

The operationalization of research variables can be described in the following table:

Table 1 Variable Operationalization

Variable	Dimensions	Indicator
<i>Budget Participation</i> (Nouri & Parker (1996))	Authorities involved in drafting	Portion of participation in budget preparation
		Amount of involvement in budget revision by superiors
	Authority decisions	Frequency of budget discussions with seniors initiated
		The final budget amount that can be influenced
		Contribution to budget preparation
<i>Vertical information sharing</i> (Parker & Kyj, 2006)	<i>Sharing</i> situation information	Share information about duties and responsibilities in the budget preparation process
	<i>Sharing</i> operation information	Provide information about opportunities and problems to superiors in the budget preparation process
<i>Psychological capital</i> (Venkatesh & Blaskovich, 2010)	<i>Self Efficacy</i>	Ability to find long-term problem solutions
		Ability to contribute to strategic meetings
		Ability to provide the best work results
	<i>Hope</i>	Passionate about achieving work targets
		Success in working/carrying out tasks
		Ideas for achieving work targets
	<i>Optimism</i>	Hope for the best when there is uncertainty
		Memihat the good side of the job
		Optimistic about the future come
<i>Resilience</i>	Able to solve problems in various ways.	
	Can do it alone if forced	
	Can go through difficult times	
<i>Management commitment</i> (Sheldon, 1971; Locke 1985; Meyer & Allen, 1991; Mowday, 1997)	Affective/emotional attachment	Belief in and acceptance of the value and purpose of the budget
		Willingness to focus on efforts to achieve goals
		Willingness to give the best for the organization
	Sustainable	Benefits of achieving budget goals for yourself
		It is likely that budget objectives need to be revised
	Normative / responsibility	Reasons for ignoring budget goals
<i>Performance Management</i>	Planning	Planning in work units
	Coordination	Coordination of activities

Variable	Dimensions	Indicator
t (Mahoney et al, 1963)	Evaluation	Evaluation of subordinate activities
	Investigation	Investigation in recording facts
	Supervision	Supervision in setting performance measures
	Staff selection	Selection of outstanding staff for good performance
	Negotiation	Negotiation to accomplish different goals
	Representative	Representative of the group

Source: Research Data (2022)

3. RESULTS AND DISCUSSION

3.1 Descriptive Analysis

Based on the collected data, respondents' answers are categorized based on the maximum score range and minimum score divided by the number of desired categories. Respondents' answers to each statement item were categorized into 5 (five), namely: very good, good, fair, not good and not good. Following are the results of calculating the average score, realization and gap for each variable.

Table 2
Analysis of Research Variable Scores

No	Variable	Real Score	Max Score	Average Score	% Realization	%GAP	Criteria
1	Budget Participation	2753	3720	3.70	74.01%	25.99%	Good
2	Vertical information sharing	939	1240	3.78	75.73%	24.27%	Good
3	Psychological capital	6246	7440	4.20	83.95%	16.05%	Good
4	Management commitment	4477	5580	4.01	80.23%	19.77%	Good
5	Management performance	3979	4960	4.01	80.22%	19.78%	Good

Source: Data processing results (2022)

3.2 Full Model Testing and Structural Model Suitability

The next test is the full structural model estimation analysis aimed at providing an overview of the relationship between latent variables and each indicator that describes the latent variable. All indicators have been declared valid and reliable for measuring research variables. Full structural model estimation results depicted:

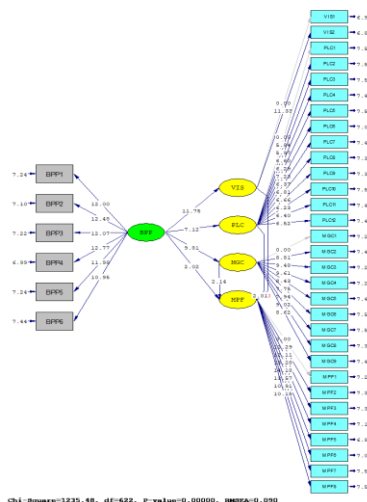


Figure 2. Comprehensive Solution Structural Model Diagram
 Source: Processed Data (2022)

Evaluation of the suitability of the model is presented in the following table:

Table 3. Model Fit Testing

No	Match Criteria	Target Level of Model Fit	Model Estimation Results	Model Fit Level
1	NFI	NFI ≥ 0.90	0.96	Good
2	NNFI	NNFI ≥ 0.90	0.98	Good
3	PNFI	PNFI ≥ 0.90	0.90	Good
4	CFI	CFI ≥ 0.90	0.98	Good
5	IFI	IFI ≥ 0.90	0.98	Good
6	RFI	RFI ≥ 0.90	0.95	Good
7	SRMR	SRMR ≤ 0.05	0.025	Good

Source: Processed Data (2022)

Based on the table above, the overall model suitability testing results can be seen as sufficiently met the required fit index rules. Furthermore, according to the research paradigm, there are five structural models tested in this research. The results of statistical testing on structural model measurements in this research are expressed in mathematical equations:

$$\eta_1 = 1.07 * \xi_1 - 0.13$$

$$\eta_2 = 0.94 * \xi_1 + 0.11$$

$$\eta_3 = 0.96 * \xi_1 + 0.069$$

$$\eta_4 = 0.96 * \xi_1 + 0.077$$

$$\eta_4 = -0.30 * \eta_1 + 0.27 * \eta_2 + 0.45 * \eta_3 + 0.58 * \eta_4 + 0.067$$

Information:

ξ_1 = variable *Budget Participation*

η_1 = variable *effectiveness of vertical information sharing*

η_2 = variable *psychological capital*

η_3 = variable *management commitment*

η_4 = variable *performance management*

γ = path coefficients between exogenous latent variables

β = path coefficient between endogenous latent variables

ζ = measurement error of the endogenous latent variable

3.3 Path Coefficient Analysis

The results of the path coefficient calculation can be seen in Figure 3:

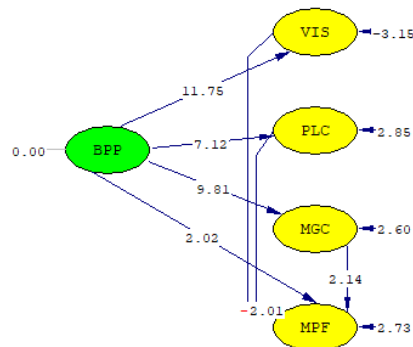


Figure 3. Coefficient Line Calculation Results
(Data processing results, 2022)

Table 4
Summary of Hypothesis Testing Results

Alternative Hypothesis (Ha)	Path (Relationship)	Mark t count (≥1.64)	Influence			Conclusion Null hypothesis (H0)
			Direct	No Direct	Total	
H1	BPP → VIS	11.75	1.07	-	1.07	Accepted
H2	BPP → PLC	7.12	0.94	-	0.94	Accepted
H3	BPP → MGC	9.81	0.96		0.96	Accepted
H4	VIS → MPF	-1.80	-0.30	-	-0.30	Rejected
H5	PLC → MPF	2.01	0.27	-	0.27	Accepted
H6	MGC → MPF	2.14	0.45		0.45	Accepted
H7	BPP → MPF	2.02	0.58	-	0.58	Accepted
H8	BPP → VIS → MPF	11.75	0.58	$(0.58 \times -0.30) = -0.174$	0.406	Rejected
H9	BPP → PLC → MPF	7.12	0.58	$(0.58 \times 0.27) = 0.1566$	0.737	Accepted
H10	BPP → MGC → MPF	9.81	0.58	$(0.58 \times 0.45) = 0.261$	0.841	Accepted

Source: Processed Data (2022)

3.4 Discussion

Based on the results of hypothesis testing, it shows that Budget Participation has a significant effect on vertical information sharing. This means that the higher the level of participation in budget preparation, the better the effectiveness of vertical information sharing. Empirical facts from hypothesis testing illustrate that participation in budget preparation in manufacturing companies listed on the IDX has provided extensive opportunities for the personnel involved to discuss and share information with each other.

Based on the results of hypothesis testing, it shows that Budget Participation has a significant effect on psychological capital. These results show that the higher the budget participation in manufacturing companies listed on the IDX, the higher the self-efficacy, optimism, hope and resilience as elements of the psychological capital of managers will also be. Budget participation can facilitate the development of an employee's psychological level. Budget participation provides employees with the opportunity to receive encouragement from superiors as they work to set a budget, thereby building self-confidence to succeed in achieving the budget.

The results of hypothesis testing show that Budget Participation has a significant effect on management commitment. This means that the higher the level of participation in budget preparation, the better the manager's commitment will be. All of the manufacturing companies listed on the IDX that were surveyed stated that the budget preparation process had been carried out in a participatory manner. The budgeting process has also been supported by supporting applications or software, with higher involvement accompanied by a monitoring dashboard so that in the system the manager's commitment is encouraged to be higher in implementing the budget.

Budget Participation has a positive and significant effect on the management performance of manufacturing companies listed on the IDX. This means that the higher the level of participation in budget preparation, the better managerial performance will be. Budget participation in manufacturing companies has made managers better understand the objectives of the budget because they are involved in the formulation process so that it also has an impact on maximum efforts to achieve the budget target. With budget participation, employees feel they have an equal opportunity to express opinions in the decision-making process, thereby increasing morale.

Based on the results of hypothesis testing, it shows that the effectiveness of vertical information sharing does not have a positive and significant effect on management performance. This means that participation in budget preparation is not a determinant of managerial performance. Based on interviews with several manufacturing company managers, this is due to technical (technological) factors, new managers with a younger age have more mastery and ability (skills) in the field of technology compared to old managers with a relatively older age.

The results of hypothesis testing show that psychological capital has a significant positive effect on management performance. This means that the higher the level of psychological capital, the better managerial performance will be. Based on interviews with manufacturing company managers, psychological factors become intrinsic motivation for managers in achieving budget targets and collaborating to achieve them, as well as supporting the persistence of finding alternative solutions to problems that arise in operational processes. The psychological capital factor is an emotional factor that is a more lasting driver in achieving sustainable performance of managers of manufacturing companies listed on the IDX.

The results of hypothesis testing show that management commitment has a significant positive effect on management performance. This means that the better the manager's commitment, the better the performance of the manufacturing company manager. Based on interviews with managers, management commitment to manufacturing companies listed on the IDX is no longer just a value but has become a real action that must be demonstrated by managers in their daily activities. The manufacturing industry always requires standardization and always works based on SOPs, so management is required to always provide examples (role models) of fulfilling commitments to what is already in these standards.

The results of hypothesis testing show that budget participation does not have a significant positive effect on management performance through the effectiveness of vertical information sharing. This means that the high and low performance of managers of manufacturing companies listed on the IDX does not depend on budgeting participation through the effectiveness of vertical information sharing. According to several manufacturing company managers, this is because budgeting participation has indeed opened up opportunities to exchange information between units and personnel, but information sharing is still limited to matters that are still normative in the budget, such as work unit cost requirements and target negotiations.

The results of hypothesis testing show that Budget Participation has a significant positive effect on Management performance through psychological capital. This means that the higher the level of participation in budget preparation, the higher the psychological capital will be and have an impact on increasing managerial performance. By being involved in the budget preparation process, they feel that their abilities, ideas and opinions are more respected within the organization so that their need for self-actualization is met.

The results of hypothesis testing show that budget participation has a significant positive effect on management performance through management commitment. This means that the higher the level of participation in budget preparation, the higher the manager's commitment will be and will have an impact on increasing managerial performance. This is because the participation process in preparing the budget has created a great sense of responsibility for the managers of manufacturing companies registered on the IDX to achieve what has been mutually agreed upon. The budget preparation process requires participation from all levels of managers, so that it has an impact on improving the performance of these managers in their respective work units.

4. CONCLUSION

4.1 Conclusion

The manufacturing industry has a very important role in the national economy. The manufacturing industry is the main support for economic growth or a source of Gross Domestic Product (GDP), employment, increasing export value and increasing investment flows. Elaboration of the variables that influence the performance of managers in manufacturing companies listed on the IDX is something that is of concern to both researchers and practitioners in the manufacturing industry. The results of this research findings are explained in detail as follows:

- 1) Budget participation has a positive effect on the effectiveness of vertical information sharing. Participation in budget preparation at manufacturing companies listed on the IDX has provided extensive opportunities for the personnel involved to discuss and share information with each other.
- 2) Budget participation has a positive effect on psychological capital. The higher the budget participation in manufacturing companies registered on the IDX, the higher the self-efficacy, optimism, hope and resilience as elements of the psychological capital of managers will also be.
- 3) Budget participation has a positive effect on management commitment. Participatively designed budgets in manufacturing companies have made managers more motivated and given them a sense of personal responsibility to achieve them because they participate or are involved in preparing budgets which are carried out systematically and measurably.
- 4) Budget participation has a positive effect on management performance. Budget participation in manufacturing companies has made managers better understand the objectives of the budget because they are involved in the formulation process so that it also has an impact on maximum efforts to achieve the budget target.
- 5) The effectiveness of vertical information sharing does not have a positive effect on management performance. Information sharing in manufacturing companies still does not have a formal form, so it sometimes triggers conflicts that can reduce the manager's performance.
- 6) Psychological capital has a positive effect on management performance. Psychological factors become intrinsic motivation for managers in achieving budget targets and collaborating to achieve them, as well as supporting the persistence of searching for alternative solutions to problems that arise in operational processes and performance achievements.
- 7) Management commitment has a positive effect on management performance. Management commitment to manufacturing companies listed on the IDX is no longer just a value but has become a real action that must be demonstrated by managers in their daily activities. The manufacturing industry always requires standardization and always works based on SOPs, so management is required to always provide examples (role models) of fulfilling commitments to what is already in these standards.

- 8) Budget participation does not have a positive effect on management performance through the effectiveness of vertical information sharing. Budgetary participation has indeed opened up opportunities to exchange information between units and personnel, but information sharing is still limited to matters that are still normative in the budget, such as work unit cost requirements and target negotiations. Information sharing has not yet touched on innovative aspects to improve performance, such as formulating strategies so that companies become adaptive to technological developments and social changes in society.
- 9) Budget participation has a positive effect on management performance through psychological capital. Managers who are involved in the budget preparation process feel that their abilities, ideas and opinions are more appreciated within the organization so that the need for self-actualization is met. Fulfilling the intrinsic value of managers becomes capital for them to optimize their potential so that it can help their performance be better. With the psychological capital possessed by individuals, they will be able to improve performance because there is a sense of enthusiasm, optimism, resilience and self-confidence in carrying out the mandate given by the principal.
- 10) Budget participation has a positive effect on management performance through management commitment. Participation in budget preparation has created a great sense of responsibility for managers of manufacturing companies registered on the IDX to achieve what has been mutually agreed upon. The budget preparation process requires participation from all levels of managers, so that it has an impact on improving the performance of these managers in their respective work units.

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