STRUCTURAL EQUATION MODELING (SEM) ANALYSIS OF MOTIVATION, TRAINING AND DEVELOPMENT, AND ORGANIZATIONAL CULTURE ON WORK DISCIPLINE AND EMPLOYEE PERFORMANCE AT PEKANBARU WATER REGIONAL COMPANY

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Abstract
In accordance with the topic chosen by the author, the purpose of this study is to find out the relationship between motivation, training and development and organizational culture on work discipline and employee performance in PDAM Pekanbaru, Riau. In this case we use motivation, training and development and organizational culture as independent variables and work discipline and employee performance as the dependent variable. Through the data obtained in this study, we can study, analyze and evaluate each variable and its relationship to employees in PDAM Pekanbaru in order to optimize the human resources they have. This research is expected to provide benefits for related parties. The method used in this research is Structural Equation Modeling (SEM) Analysis. Steps being taken in this method include developing theoretical models, developing flowcharts, converting flowcharts into structural equations and measurement models, selecting the type of input matrix and estimating proposed models, evaluating structural model identification, evaluating hypothesis testing compatibility, interpreting and modifying models. Each methodology has advantages and disadvantages.

Keywords: *Motivation, Training and Development, Organizational Culture, Discipline, Employee Performance, Structural Equation Modeling.*

1. INTRODUCTION

Performance is a potential that must be owned by every employee to carry out every task and responsibility given by the organization to employees (Alhempi, 2023). With good performance, every employee can solve all organizational burdens effectively and efficiently so that problems that occur in the organization can be resolved properly (Chartady, 2023). Performance is the real foundation in an organization because if there is no performance then organizational goals cannot be achieved (Kabul, 2023). Performance needs to be used as evaluation material for leaders to find out the level of performance in the organization. In a company, discipline is an important factor to

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produce the best performance from employees (Setiawan, 2023). Good discipline can be seen from an employee's great sense of responsibility for the tasks assigned to him. This can encourage employees to be more enthusiastic and enthusiastic at work which ultimately supports the achievement of company goals. Hasibuan (2015), states that work motivation is the provision of driving force that creates enthusiasm for someone's work so that they want to work together, work effectively, and integrate with all their efforts to achieve satisfaction (Norrahmiati & Suharto., 2023).

There are many things that can affect the performance and discipline of employees in a company, some of which are motivation, training and development, as well as organizational culture which we will discuss in this research. Malayu (Hasibuan, 2015) states that "Motivation is the provision of driving force that creates the excitement of one's work so that they want to cooperate, work effectively and integrate with all their efforts to achieve satisfaction, direct and maintain behavior related to the work environment". Human resource development is usually related to efforts to upgrade the intellectual or emotional abilities needed to complete workers so that they become even better. This development is based on the fact that every employee needs knowledge, competence, and needs to develop in order to work well and be able to pursue a career to a higher level.

Organizational culture is defined as a cognitive framework that creates shared attitudes, values, norms and expectations shared by organizational members. Work discipline is the nature of an employee who consciously obeys certain organizational rules and regulations. This greatly affects the performance of employees and the organization. Discipline should be seen as a form of training for employees in carrying out company rules. Every employee in the organization, both public and private, must carry out the level of discipline properly and responsibly. Pekanbaru Water Supply Company (PDAM) is one of the Regional Owned Enterprises (BUMD) engaged in the supply of drinking water and waste management. PDAM Pekanbaru has a vision to become a leading drinking water and wastewater management company in Indonesia.

To optimize the performance and discipline of employees, leaders and company management need to think about appropriate and efficient strategies and motivate their employees so they can maintain their optimal performance. Based on the results of surveys and observations made, employees at PDAM Pekanbaru have quite good performance and discipline. It is estimated that there are many factors that motivate employees to always perform optimally and maintain discipline at work. Based on the description above, the authors are interested in reviewing the influence of motivational factors, training and development, and organizational culture on employee discipline and performance in PDAM Pekanbaru. The research will be outlined in a scientific paper entitled: "Structural Equation Modeling (SEM) Analysis on Motivation, Training and Development, and Organizational Culture on Work Discipline and Employee Performance of PDAM Pekanbaru". Then based on the limitations of the problem, the formulation of the research problem is as follows:
1. Does motivation affect the work discipline of PDAM Pekanbaru employees?
2. Does motivation affect the performance of Pekanbaru PDAM employees?
3. Does training and development affect the work discipline of PDAM Pekanbaru employees?
4. Does training and development affect the performance of PDAM Pekanbaru employees?

5. Does organizational culture affect the work discipline of PDAM Pekanbaru employees?
6. Does organizational culture affect the performance of PDAM Pekanbaru employees?

2. IMPLEMENTATION METHOD

Structural Equation Modeling analysis on work discipline and employee performance factors can be seen in the following research paradigms:
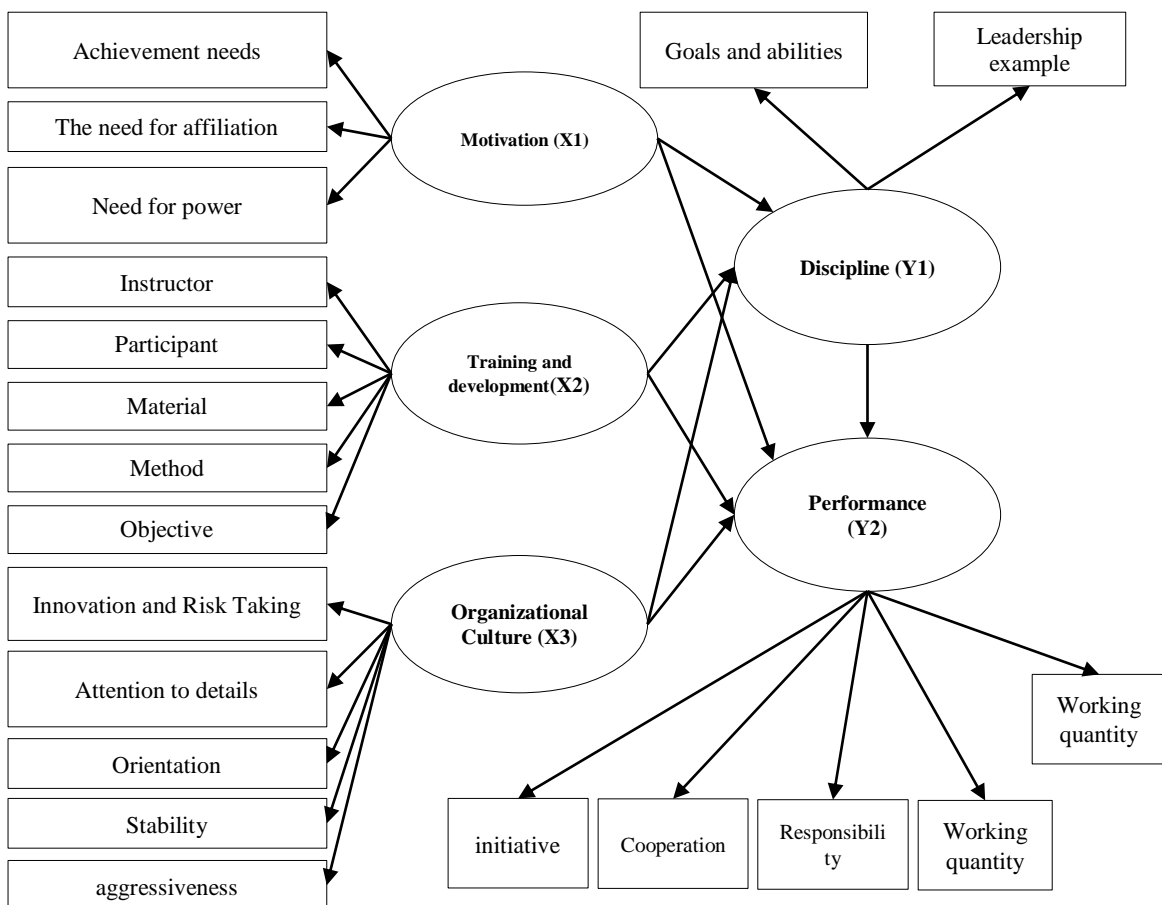

Figure 1
SEM Conceptual Framework

Information:
X1 : Motivation
X2 : Training and Development
X3 : Organizational Culture
Y1 : Discipline

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Y2 : Performance

Based on the research analysis model above, the research hypothesis can be formulated as follows:
H1: Motivation influences work discipline at PDAM Pekanbaru.
H2: Motivation influences employee performance at PDAM Pekanbaru.
H3: Training and development have an effect on work discipline at PDAM Pekanbaru.
H4: Training and Development have an effect on employee performance at PDAM Pekanbaru.
H5: Organizational culture influences work discipline at PDAM Pekanbaru.
H6: Organizational culture influences employee performance at PDAM Pekanbaru.
The operational identification and definition of research variables are as follows:

1. Motivation (X1): Providing driving force that creates enthusiasm for someone's work so that they want to work together, work effectively, and integrate with all their efforts to achieve satisfaction Mangkunegara, (2015). Research indicators that can be used are: job challenges, job responsibilities and achievements, awards, relationships with organizations, cooperation, position in work, and seek opportunities to expand power. Then the measurement scale used is the Likert and Ordinal scales.

2. Training and Development (X2): a short-term educational process that uses systematic and organized procedures where non-managerial employees learn technical knowledge and skills within the limited objectives of Mangkunegara, (2015). Research indicators that can be used are: education, mastery of the material, enthusiasm for training, selection, according to purpose, according to participant components, target setting, socializing goals, having clear goals, and improving skills. Then the measurement scale used is the Likert and Ordinal scales.

3. Organizational Culture (X3): a system of shared meaning shared by members that differentiates an organization from other organizations Angelica (2015). Research indicators that can be used are::willingness to innovate, courage to take risks, support for subordinates, concern for subordinates, result orientation, people orientation, team orientation, competitiveness, and maintaining status as opposed to growth. Then the measurement scale used is the Likert and Ordinal scales.

4. Work Discipline (Y1): A person's awareness and willingness to comply with company regulations and applicable norms Hasibuan, (2015). Research indicators that can be used are: goals are given clearly, goals are given based on employee abilities, rules from the leadership, and the attitude of the leaders obeys the rules. Then the measurement scale used is the Likert and Ordinal scales.

5. Employee Performance (Y2): Work results in quality and quantity achieved by an employee in carrying out their duties in accordance with the responsibilities given to them Mondy, (Mangkunegara, 2015). Research indicators that can be used are: have optimal work results, work results according to company expectations, work results according to targets, timely completion of work, ability to carry out tasks according to procedures, ability to bear risks, ability to cooperate between employees, good

communication between employees, ability to provide ideas, and the ability to utilize organizational resources. Then the measurement scale used is the Likert and Ordinal scales.

The research approach implemented in this research is quantitative. This research was conducted in 4 branches of the Pekanbaru Water Company (PDAM), Riau. This research starts from October 2022 to June 2022. The population in this study were employees of the Pekanbaru Water Company (PDAM), Riau. The sample in this study were 203 employees. Data collection techniques used are a list of questions (questionnaire) and documentation study. The data analysis method used in this study is *Structural Equation Modelling*(SEM). SEM is a statistical modeling technique that is highly cross-sectional, linear and general. Included in this SEM are factor analysis, path analysis and regression.

3. RESULTS AND DISCUSSION
3.1 Characteristics of Respondents

The characteristics of the respondents in this study can be grouped into several aspects, namely gender, age, and last level of education. The description of each respondent's characteristics can be described as follows:

a. Based on Gender

Based on gender, the respondents of this study can be described as follows:

Table 1
Characteristics of Respondents Based on Gender

Gender	Amount	Percentage
Man	135	66.50
Woman	68	33.50
Amount	**216**	**100.00**

Source: Primary data processed, 2023

The table above shows respondents based on gender indicating that the employees were dominated by 135 men or 66.50% and 68 women or 33.50%.

b. By Age

Based on age, the respondents of this study can be described as follows:

Table 2
Characteristics of Respondents by Age

Age	Number of Respondents	Percentage
>25	0	0%
25 – 35	36	17.73%
36–45	84	41.38%
<45	83	40.89%
Total	**203**	**100%**

Source: Primary data processed, 2023

Based on the age level in the table above, it shows that of the number of respondents studied, there were 203 employees aged 36-45 at PDAM Pekanbaru, which was 41.38%. This shows that the number of employees of that age is still productive.

c. Based on Education Level

Based on the level of education, the respondents of this study can be described as follows:

Table 3
Characteristics of Respondents Based on Education Level

Level of education	Amount	Percentage
SLTA/SMK	77	37,93
D3	3	1.48
S1	115	56,65
S2	8	3.94
Amount	**203**	**100**

Source: Primary data processed, 2023

The table above shows respondents based on educational level, it is known that the majority of employees are bachelor graduates, namely 115 people (56.65%).

3.2 Measurement Models And Structural Models

CFA is a special form of factor analysis. CFA is used to assess a number of variables that are independent of the others. Factor analysis is a technique for combining questions or variables that can create new factors and combining objectives to create new groups successively. There are two types of testing in this stage, namely the Comfirmatory Factor Analysis (CFA), namely the measurement model and the Structural Equation Modeling (SEM). The CFA measurement model is directed at investigating the unidimensionality of indicators that explain a factor or a latent variable.
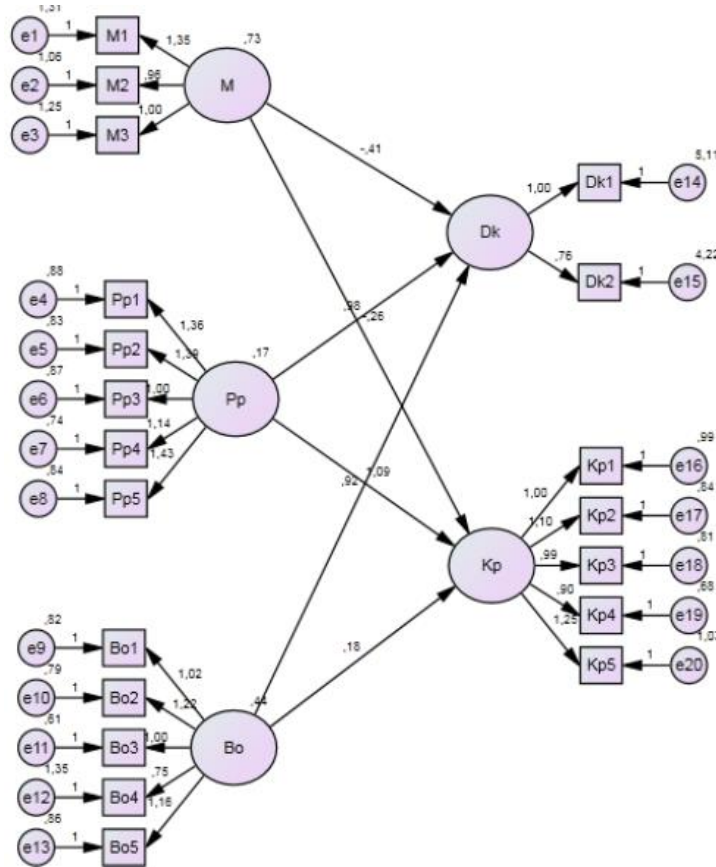
Figure 2
AMOS Output Framework

a. Chi Square Compatibility Test

This fit test measures how close the implied covariance matrix is (predicted covariance matrix) and the sample covariance matrix (covariance matrix of the sample data). Large sample size (more than 200), this test tends to reject H0. On the other hand, for small sample sizes (less than 100), this test tends to accept H0. Therefore, it is recommended that the sample size of the data to be tested in the Chi square test is a data sample ranging from 100-200. The probability of a Chi square value is $0.000 > 0.5$ so that there is a match between the implied covariance matrix (predicted covariance matrix) and the sample covariance matrix (covariance matrix of the sample data).

b. *Goodness-of-Fit Index (GFI)*

The GFI measure is basically a measure of the ability of a model to explain the diversity of data. GFI values range from 0-1. In fact, there are no standard criteria for a good GFI score. However, it can be concluded that a good model is a model that has a GFI value

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close to 1. In practice, many researchers use a minimum limit of 0.9. The GFI value in the SEM analysis of 0.717 exceeds the number 0.9 or the range is between 0-1 so that the ability of a model to explain the diversity of data is very good/fit.

c. *Root Mean Square Error Of Approximation (RMSEA)*
RMSEA is a measure of the expected average size per degree of freedom in a population. An RMSEA value < 0.08 is a good fit, while an RMSEA value < 0.05 is a close fit.

d. *Non-Centrally Parameters (NCP)*
NCP is expressed in terms of Chi-square re-specification. Assessment is based on comparison with other models. The smaller the value, the better.

3.3 Hypothesis test

To find out the results of hypothesis testing is done by looking at the probability value (probability) or by looking at the significance of the linkages of each research variable. AMOS 22 can be set criteria for acceptance and rejection of the hypothesis as follows:

If P > 0.05 then H0 is accepted (not significant)

If P < 0.05 then H0 is rejected (significant)

Table 4
CR and P-Value Estimation Results

			Estimates	SE	C,R,	P	Label
Dk	<---	M	-,415	, 192	-2.164	.030	par_16
Kp	<---	M	-,261	,069	-3,789	***	par_17
Dk	<---	Pp	,977	,427	2,290	,022	par_18
Kp	<---	Pp	1,093	,275	3,973	***	par_19
Dk	<---	Bo	,919	,271	3,388	***	par_20
Kp	<---	Bo	,180	,069	2,609	,009	par_21
M3	<---	M	1,000				
M2	<---	M	,956	, 165	5,807	***	par_1
M1	<---	M	1,347	,228	5,897	***	par_2
Pp3	<---	Pp	1,000				
Pp2	<---	Pp	1,394	,328	4,255	***	par_3
pp1	<---	Pp	1.356	,325	4,179	***	par_4
Bo3	<---	Bo	1,000				
Bo2	<---	Bo	1.223	, 178	6,886		par_5
Bo1	<---	Bo	1.017	,59	6,390	***	par_6
Dk1	<---	Dk	1,000				
Dk2	<---	Dk	,756	,263	2,872	,004	par_7
Kp1	<---	Kp	1,000				
Kp2	<---	Kp	1.101	,226	4,863	***	par_8
Kp3	<---	Kp	,987	,210	4,691	***	par_9
pp4	<---	Pp	1.142	,281	4,064	***	par_10

Pp5	<---	Pp	1.425	,333	4,274	***	par_11
Bo4	<---	Bo	,754	, 165	4,580	***	par_12
Bo5	<---	Bo	1.157	, 173	6,675	***	par_13
Kp4	<---	Kp	,895	, 192	4,659	***	par_14
Kp5	<---	Kp	1,254	,255	4,917	***	par_15

Source: Amos Output (2023)

The first hypothesis is that there is a significant influence of motivation on the work discipline of PDAM Pekanbaru, where the probability value is 0.030 <0.05 so that it is known that motivation influences work discipline significantly.

The second hypothesis is that there is a significant influence of motivation on employee performance in Pekanbaru PDAM employees, where the probability value is below 0.05 (5%).

third hypothesistThere is a significant effect of training and development on the work discipline of PDAM Pekanbaru employees, where the probability value is 0.022 <0.05 so it is known that training and development significantly affect employee work discipline.

The fourth hypothesis has a significant effect of training and development on the performance of Pekanbaru PDAM employees, where the probability value is below 0.05 (5%).

Fifth hypothesistthere is a significant influence of organizational culture on work discipline in Pekanbaru PDAM employees, where the probability value is below 0.05 (5%).

The sixth hypothesis is that there is a significant influence of organizational culture on the performance of PDAM Pekanbaru employees, where the probability value is 0.009 <0.05 so that it is known that organizational culture influences employee performance significantly.

3.4 Discussion

a. The Effect of Motivation on Work Discipline

The results of the analysis using Structural Equation Modeling (SEM) with AMOS 22 software prove that there is a significant effect on motivation on work discipline among PDAM Pekanbaru employees. One of the factors to improve work discipline is motivation. Basically a company does not only expect employees who are willing and able to work diligently, but how to have high motivation to achieve organizational goals, the abilities, skills and skills of employees are meaningless if they are not followed by high motivation from each employee to increase work discipline. Human resources are the dominant factor in achieving organizational goals that need special attention.

b. The Effect of Motivation on Employee Performance

The results of the analysis using Structural Equation Modeling (SEM) with AMOS 22 software prove that there is a significant influence on employee motivation on employee performance at PDAM Pekanbaru. Manullang (2015) argues that motivation can provide incentives to the employee concerned so that the employee works with all his might and effort. This is closely related to employee performance. Employees who have a strong

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desire to work with all their might and efforts will also have good performance, because they will try to always provide optimal work results for the company.

c. The Influence of Training and Development on Work Discipline

The results of the analysis using Structural Equation Modeling (SEM) with AMOS 22 software prove that there is a significant influence on training and development on Work Discipline for PDAM Pekanbaru employees. Based on these results, it can be concluded that if HR training increases, work discipline will also increase. If the HR development program increases, the company needs to improve soft skills, improve teamwork, help solve operational problems, increase the ability to see problems from various directions, improve careers, then employee discipline will increase. And work discipline has an impact on employee productivity. The results of this study are supported by several studies by Indrawan,

d. The Influence of Training and Development on Employee Performance

The results of the analysis using Structural Equation Modeling (SEM) with AMOS 22 software prove that there is a significant effect of training and development on the performance of Pekanbaru PDAM employees. Based on these results, it can be concluded that if HR training and development increases, employee performance will also increase. Various studies show the positive impact of training and development on Andika's performance, (2018). With training and development affect the behavior and skills of employees which ultimately improves performance. The most effective way to motivate and maintain the quality of human resources in an organization is by using training and development.

e. The Effect of Organizational Culture on Work Discipline

The results of the analysis using Structural Equation Modeling (SEM) with AMOS 22 software prove that there is a significant influence of organizational culture on the work discipline of PDAM Pekanbaru. Robbins explained work discipline is a compliance in carrying out work according to company rules and standards (Wakhyuni, 2018). These attitudes and behaviors are habits that are formed from the values that are internalized by a person from the values of his organization, as well as his environment. The values that are internalized by someone who comes from their organization are called organizational cultural values. Organizational cultural values play a role in the formation of employee discipline, where organizational cultural values will direct a person to act and behave in discipline.

f. The Effect of Organizational Culture on Employee Performance

The results of the analysis using Structural Equation Modeling (SEM) with AMOS 22 software prove that there is a significant influence of organizational culture on the performance of PDAM Pekanbaru employees. Organizational culture helps employees perceive the organization or company they work for. When employees feel proud of their work and the organization they belong to, they will tend to be more easily encouraged to show good work performance. A person's encouragement can be either external or internal. Based on the results of the analysis through this research, it can be shown that organizational cultural behavior which includes innovation and risk taking, attention to

details, result orientation, people orientation, team orientation, aggressiveness and stability/stability can support the drive to achieve goals.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusion

Based on the results of data analysis and discussion of the results of the research, it can be concluded that the results of the research are as follows:

1. Motivation has a significant influence on the work discipline of PDAM Pekanbaru, where the probability value is $0.030 < 0.05$ so it is known that motivation influences work discipline significantly.
2. Motivation has a significant effect on employee performance in Pekanbaru PDAM employees, where the probability value has three stars.
3. Training and development has a significant influence on the work discipline of PDAM Pekanbaru employees, where the probability value is $0.022 < 0.05$ so it is known that training and development significantly affect employee work discipline.
4. Training and development has a significant influence on the performance of Pekanbaru PDAM employees, where the probability value has three stars.
5. Organizational culture has a significant influence on work discipline in Pekanbaru PDAM employees, where the probability value has three stars.
6. Organizational culture has a significant influence on the performance of Pekanbaru PDAM employees, where the probability value is $0.009 < 0.05$ so that it is known that organizational culture influences employee performance significantly.

4.2 Suggestion

Based on the results of the discussion, it is known that motivation, training and development, and organizational culture have a significant influence on work discipline. The following is a suggestion that I can give in relation to the research results obtained. From the research results obtained, it is known that the indicator that has the greatest influence in increasing employee motivation is found in the "need for achievement" which includes job challenges, responsibilities and work performance, as well as awards. While the indicator that has the greatest influence on the success of training and development is found in "Participants", and the indicator that has the greatest influence in strengthening organizational culture is in "Attention to details".

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