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# The Effect Of Referee Knowledge, Leadership Style And Confidence On The Performance Of Hockey Referee

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**Abstract** Purpose of this research is to examine effect of refereeing knowledge with the performance of hockey referees, the influence of the hockey referee's leadership style in his performance in leading a match, the influence of referee's confidence and performance of hockey referee, the influence of refereeing knowledge on performance of referee through self-confidence, the influence of the referee's leadership style on the performance of hockey referee through self-confidence. The method used in this research is this research was carried out with an associative quantitative approach with surveys and tests and this study used the path analysis method which was carried out on 50 samples of hockey referees. Data analysis technique was carried out through two stages of analysis, namely descriptive and inferential data analysis. The first is descriptive data analysis, which is carried out to analyze the collected data in order to obtain a description of the distribution of characteristics of values of each the variables studied. The results showed that direct effect of variable X1 on Y: 6.55%, Variable X2 on Y: 6.60%, Variable X1 on X3: 7,1%, Variable X2 on X3: 15.6 %, Variable X1 to Y through X3: 11.44%, Variable X2 to Y through X3: 14.40%.

**Keywords:** Referee; Referee performance; Hockey.

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#### INTRODUCTION

Referees are one of the important elements in championships or sports competitions, referees serve as judges or match leaders for competing teams. The good or bad performance of a referee can affect every match that takes place. Even the absence of a referee on the field can make a match will not run. Referees are an indispensable part of the game. Athletes, coaches, fans and the media are always analyzing or paying attention to all decisions that referees make. This makes the referee's performance in the match influential. In this case, every decision made by the referee may be very important and directly affect the outcome of the match (Larkin et al., 2017).

The performance of referees is considered to greatly affect sports matches. A referee who does not have the appropriate level of fitness required to officiate a match does not rule out the possibility that a referee may not position himself correctly and cannot make an accurate decision (Spice et al., 2017). The performance of a referee is expected to give the best performance made by the players in the match. The referee is the person who leads the course of a game, so the referee must be equipped with

knowledge about the rules of the game apply and performance(Performance) authoritative time in the field (Bunker et al., 1983). A referee is also someone who controls the rules in the course of the match on the field, the performance of a referee is an inseparable part in the match, the good and bad of a match can be seen from the performance of the match equipment that runs it (Fuller, CW, Junge, A., 2004).

The factors that affect the performance of a referee are very complex (Komarudin, 2015) explained that work experience training, education, attitudes. personality, organization, leaders, physical condition, ability, motivation are factors in determining performance. A person's performance is influenced by three factors, namely: (1) the competence factor, which includes abilities/skills and demographic background; (2) organizational factors, which include leadership resources; (3) psychological factors which include attitudes, personality, learning and motivation (Anatasia, nd).

Referee performance is the result obtained by a person after leading a match in which that person is assessed for his performance by a person who is competent in his field (Anggraeni, nd).

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Thus, a referee must have an adequate level of knowledge; knowledge refers to facts, information, and skills acquired from a person through experience or education; theoretical or practical understanding of the subject. To achieve knowledge, information must transformed through personal application, values, and beliefs. (Andhara et al., 2018). According to selfefficacy theory, self-confidence affects stress and anxiety through personal beliefs about behavior and mind control (Andhara et al., 2018). This behavioral interaction can be in the form of speech and even unwanted actions (Wilson & Mock, 2013).

However, in reality on the ground, even though the referee has met the requirements and qualifications determined by the knowledge of the referee and the referee's leadership style, it turns out that when leading, they often experience problems with lack of focus in leading the match, these conditions can affect the smoothness of the duties of a referee, in addition to the factors of behavior, the team he is leading in the match behaves badly which usually corners a referee's decision in the field so that it affects the audience who watched the match and then protested to the

referee by shouting in the middle of the game, these things can affect the performance of a referee. If the level of knowledge of the referee in the match is low and the style of leading is not good when leading the match, psychological factors can certainly burden the referee when leading the match, one of which is the level of confidence of a referee when making decisions in the performance of the referee leading the match.

Efforts are made to overcome unstable psychological conditions, there must be a method of practicing psychological skills that are very important to control emotions in mental problems caused by matches, namely: Imagery, goal-setting, thougt management, and physical relaxation/arousak regulation (Hayasi, 1998).

In previous studies that have been carried out (Corrigana et al., 2018) discussed the influence of matches and experience on decision-making performance at AFL referees. Research on referees in hockey games was conducted by (Gable, 2013). Subsequent research discusses the performance of referees in English Premier League football matches (Weston et al., 2010). Subsequent research discusses the instrument for assessing the performance

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of volleyball referees (Febi Aulia, 2016). The research has discussed the relationship between anxiety, self-confidence, and motivation on the performance of volleyball referees (Afif et al., 2016). Furthermore, research on the relationship between the level of physical fitness and the confidence of basketball referees (Hernawan Rosyadi et al., 2017).

Previous research has not shown any research that is centered or focused on the sport of hockey which concerns the influence of referee knowledge, leadership style and confidence on the performance of FHI referees. Previous research has discussed more about the performance of referees in other sports branches. That way, this research has an update regarding the substance that explains the role of the referee, his knowledge, his leadership style, the confidence of a referee and about the performance of a referee himself.

So that the purpose of this research is to examine the effect of refereeing knowledge with the performance of hockey referees, the influence of the hockey referee's leadership style in his performance in leading a match, the influence of the referee's confidence and the performance

of the hockey referee, the influence of refereeing knowledge on the referee's performance through self-confidence, the effect of between the referee's leadership style on the performance of hockey referees through self-confidence.

#### **METHODS**

#### **Research Methods**

This research was carried out with an associative quantitative approach with surveys and tests and this study used path analysis methods. Quantitative research is a method for testing certain theories by examining the relationship between variables (Sugiyono, 2016). The technique of data collection is an important step for this research and this data collection technique uses tests and non-tests. The test technique was used to assess the performance of the hockey referee, while the non-test was in the form of a questionnaire assess refereeing to knowledge, leadership style and selfconfidence.

# **Population and Sample**

Population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then drawn conclusions (Sugiyono, 2010). The population of this study is the

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hockey referee of the Indonesian hockey federation.

The sample is part of the number and characteristics that are owned. The sample of this study is part of the hockey referees of the Indonesian hockey federation which was taken from the population of the hockey referees of the Indonesian hockey federation by that population. So the sample is part of the population that represents all the characteristics and traits that exist in the population (Sugiyono, 2016). sample of this study was 50 Indonesian hockey federation hockey referees taken from the population of Indonesian hockey federation hockey referees.

Research Instruments Research instruments or measuring instruments used in this study are 1) Instruments to measure referee performance, 2) Instruments to measure refereeing knowledge, 3) Instruments to measure leadership style 4) Instruments to measure referee confidence.

## **Data Analysis Techniques Data**

analysis techniques were carried out through two stages of analysis, namely descriptive and inferential data analysis. The first is descriptive data analysis, which is carried out to analyze the collected data in order to obtain a description of the distribution of the characteristics of the values of each of the variables studied.

To determine the path coefficient, the following assumptions are needed: (1) the relationship between two variables must be linear, additive and causal; (2) the system adheres to the one-way principle; (3) all residual variables are uncorrelated and uncorrelated with the causal variables; (4) the data for each variable must be a continuum.

## **RESULTS AND DISCUSSION**

#### **Results**

# **Description of Data**

## 1. Refereeing Knowledge

The distribution table shows that of the 50 referees obtained from the questionnaire of refereeing knowledge with an interval class that has a score of 13-14 as many as 1 person has a lower limit of 12.5 and the percentage of relative frequency is (2%) as much as a score of 15-16 4 people have a lower limit of 14.5 and the percentage of relative frequency is (8%) with a score of 17-18 as many as 5 people have a lower limit of 16.5 and the percentage of relative frequency is (10%), who get a score of 19-20 as many as 10 people has

a lower limit of 18.5 and the percentage of relative frequency is (20%), which obtained a result of 21-22 as many as 16 people had a lower limit of 20.5 and the percentage of relative frequency was (32%), who obtained a result of 23-24 as many as 14 people had a lower limit of 22.5 and the percentage of relative frequency is (28%)

**Table 1** Frequency Distribution of Refereeing Knowledge Variable

Score	Lower	Limi t Upp er Limi t	Ten Point gah	Absol ute	Frequenc y Relative Frequenc y
13-14	12.5	14.5	13.5	1	2%
15-16	14.5	16.5	15.5	4	8%
17-18	16.5	18.5	17.5	- 5	10%
19-20	18.5	20.5	19.5	10	20%
21-22	20.5	22.5	21.5	16	32%
23-24	22.5	24.5	23.5	14	28%
	To	otal		50	100%

# 2. Leadership Style

The distribution table shows that of the 50 referees who filled out the questionnaire on leadership style, 2 people got a score of 60-66 with a lower limit of 59.5 and the relative frequency percentage was 4%, which obtained a score of 67-73 as many as 2 people had a lower limit of 66.5 and the percentage of the relative frequency was 4%, who got the result of 74-80 as many as 9 people had a lower limit of 73.5 and the percentage of relative frequency was 18%, who got 81-87 as many as 17 people have a lower limit of 80.5 and the percentage of the relative frequency is 34%, who get 88-94 as many as 15

people with a percentage of 30% and who get 95-101 that is as many as 5 people have a lower limit of 94.5 and the percentage of relative frequency is 10%

**Table 2** Variable Frequency Distribution Leadership Style

Score	Lower	Limit Uppe r Limit	Midpoi nt	Absolute	Frequenc y Relative Frequenc y
60- 66	59.5	66.5	63	2	4%
67- 73	66.5	73.5	70	2	4%
74- 80	73.5	80.5	77	9	18%
81- 87	80.5	87.5	84	17	34%
88- 94	87.5	94.5	91	15	30%
95- 101	94.5	101.5	98	5	10%

## 3. Confidence

of 50 hockey referees obtained from a self-confidence questionnaire with a score of 46-54 as many as 1 person has a lower limit of 45.5 and a percentage the relative frequency is 2%, who get the result of 55-63 as many as 3 people have a lower limit of 54.5 and the percentage of the relative frequency is 6%, who get 64-72 as many as 8 people have a lower limit of 63.5 and the percentage of the relative frequency is 16%, who get the result 73-81 as many as 15 people have a lower limit of 72.5 and the percentage of the relative frequency is 30%, who get the results of 82-90 as many as 16 have a lower limit of 81.5 and the percentage of the relative frequency is 32%, and hockey referees who get results of 91-99 are 7 people have a lower limit of 90.5 and the percentage of relative frequency is 14%

 Table 3 Distribution of Frequency

 Variable Confidence

Scor e	Lower	Limit Uppe r Limit	Midpoi nt	Absolute	Frequenc y Relative Frequenc y
46- 54	45.5	54.5	50	1	2%
55- 63	54.5	63.5	59	3	6%
64 - 72	63.5	72.5	68	8	16%
73- 81	72.5	81.5	77	15	30%
82- 90	81.5	90.5	86	16	32%
91- 99	90.5	99.5	95	7	14%
	Т	otal		50	100%

## 4. Referee Performance The

distribution table above shows that of 50 people hockey referees obtained questionnaire results from the performance of hockey referees with a score of 97-99 as many as 9 people had a lower limit of 96.5 and the percentage of relative frequency was 18%, which obtained 100-102 as many as 22 people had a lower limit of 99.5 and the percentage of relative frequency was 44%, which obtained 103-105 as many as 10 people had a lower limit of 102.5 and the percentage of relative frequency was 20%, who obtained 106-108 as many as 3 people had a lower limit of 105.5 and the percentage of relative frequency was 6%, who obtained 109-111 as many as ak 1 person has a lower

limit of 108.5 and the relative frequency percentage is 2%, and hockey referees who get 112-114, namely 5 people have a lower limit of 111.5 and the relative frequency percentage is 10%.

**Table 4** Frequency Distribution of Referee Performance Variables

Score	Lower	Limit Uppe r Limit	Midpoi nt	Absolute	Frequenc y Relative Frequenc y
97-99	96.5	99.5	98	9	18%
100-102	99.5	102.5	101	22	44%
103-105	102.5	105.5	104	10	20%
106-108	105.5	08.5	107	3	6%
109-111	108.5	111.5	110	1	2%
112-114	111.5	114.5	113	5	10%
	To	tal		50	100%

## **Normality**

# Test Normality Test Estimated Error X1 against Y

Obtained statistical test of 0.189 and Asymp. Sig (2-tailed) of 0.200 or can be written as a probability value (p-Value) = 0.200 > 0.05 or H0 is accepted. With these results, it can be concluded that the results of the referee's knowledge of the referee's performance are normally distributed.

# 2) Normality Test of Estimated ErrorX2 against Y

Obtained a statistical test of 0.160 and Asymp. Sig (2-tailed) of 0.063 or can be written as a probability value (p-Value) = 0.063 > 0.05 or H0 is accepted. With these results, it can be concluded that the results of the leadership style data on the

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performance of referees are normally distributed.

Normality Test Error EstimatesX3 to Y

ingetting test statistic of 0.143 and Asymp. Sig (2-tailed) of 0.052 or can be written as a probability value (p-Value) = 0.052 > 0.05 or H0 is accepted. With these results, it can be concluded that the data on the results of confidence in the performance of the referees are normally distributed.

 Normality Test of Estimated Error of X1 against X3

Obtained a statistical test of 0.83 and Asymp. Sig (2-tailed) of 0.200 or can be written as a probability value (p-Value) = 0.200 > 0.05 or H0 is accepted. With these results, it can be concluded that the data of the referee's knowledge of the referee's confidence is normally distributed

5) Normality Test of Estimated Error of X2 to X3

Obtained a statistical test of 0.114 and Asymp. Sig (2-tailed) of 0.109 or can be written as a probability value (p-Value) = 0.109 > 0.05 or H0 is accepted. With these results, it can be concluded that the results of leadership style data on referee confidence are normally distributed.

6) Normality Test of Estimated Error of X1 against X2

Obtained a statistical test of 0.062 and Asymp. Sig (2-tailed) of 0.200 or can be written as a probability value (p-Value) = 0.200 > 0.05 or H0 is accepted. With these results, it can be concluded that the data of the referee's knowledge of the referee's leadership style is normally distributed.

## **Homogeneity Test**

**Table 5** HomogeneityResults

TestTest of h	omoge ances	neity of	AN	OVA
Homogeneit y Test	Sig.	Table Norm s (α)	Sig.	Table norm (α)
Y top X1	0.16		0.00	
Y top X2	0.14 6		0.00	
Y top X3	0.14 9	]	0.00	
X3 top X1	0.86	>0.05	0.00	<0.05
X3 above X2	0.12 9		0.00 7	
X2 above X1	0.11 1		0.00	

Based on table 4.12 the results of the homogeneity test of Y over X1 obtained p-value = 0.162 > 0.05 H0 is accepted. Thus, it can be concluded that the performance of referee Y on the knowledge of refereeing X1 comes from a homogeneous variance. In table ANOVA, p-value = 0.00 < 0.05 was obtained. Thus there is a difference in the average Y over X1.

Based on table 4.12 the results of the homogeneity test of Y over X2 are

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obtained p-value = 0.146 > 0.05 H0 is accepted. Thus, it can be concluded that the performance of referee Y on X2's leadership style comes from a homogeneous variance. In table ANOVA, p-value = 0.00 < 0.05 was obtained. Thus there is a difference in the average Y over X2.

Based on table 4.12 the results of the homogeneity test of Y over X3 obtained p-value = 0.149 > 0.05 H0 is accepted. Thus, it can be concluded that the performance of referee Y on X3's confidence comes from a homogeneous variance. In table ANOVA, p-value = 0.00 < 0.05 was obtained. Thus there is a difference in the average Y over X3. Based on table 4.12 the results of the homogeneity test of X3 over X1 obtained p-value = 0.86 > 0.05 H0 is accepted. Thus, it can be concluded that X3's confidence in X1's refereeing knowledge comes from homogeneous variance. In table ANOVA, p-value = 0.00 < 0.05was obtained. Thus, there is an average difference between X3 and X1.

Based on table 4.12 the results of the homogeneity test of X3 over X2 obtained p-value = 0.138 > 0.05 H0 is accepted. Thus, it can be concluded that X3's confidence in X2's leadership style comes from a homogeneous variance. In table ANOVA obtained p-value = 0.07 <0.05. Thus, there is an average difference between X3 and X2.

Based on table 4.12 the results of the homogeneity test of X2 over X1 obtained the p-value = 0.111 > 0.05 H0 is accepted. Thus, it can be concluded that X2's leadership style on X1's refereeing knowledge comes from homogeneous variance. In table ANOVA, p-value = 0.00 < 0.05 was obtained. Thus, there is an average difference between X2 and X1.

## **Linearity Test**

The next step from the data of each variable aims to see whether the two variables have a unidirectional relationship or not significantly. The linearity test and the significance of the regression equation were determined based on the table ANOVA. The test criteria are H0; Y = + X (linear regression); H1:  $Y \alpha \neq + SSX$  (non linear regression). The test analysis uses SPSS ver 26. The summary of the linearity test can be seen in the table below:

Table 6 Summary of the Linearity Test and the Significance of the Regression Equation of

the Linearity Test of	Sig.	Table Norm (α)
Y top X <sub>1</sub>	0.847	
Y top X2	0.563	0.05
Y top X <sub>3</sub>	0.548	_

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$X_3$ top $X_1$	0.974
X <sub>3</sub> top X <sub>2</sub>	0.069
$X_2$ top $X_1$	0.577

# **Hypothesis**

## **Testing Substructural 1**

TestingTesting on the structural model 1 to see the effect of the refereeing knowledge—variable—(X1)—on—the leadership style (X2) of hockey referees. R2 of 0.007 means that 0.7% variability leadership style (X2) can be described by refereeing knowledge variable (X1). So that the error () = 1- R2 = 1 – 0.007 = 0.93. The path coefficient of Refereeing knowledge—(X1)—and leadership style—(X2)—or—(P12) = 0.86 was obtained by Sig. = 0.000//2= 0.00 < = 0.05. From the results of testing the structural model 1 is significant.

## **Substructural Testing 2**

Testing on structural 2 is the variable of refereeing knowledge (X1), leadership style (X2) and confidence (X3) of hockey referees. The basis for the decision of testing the substructure model 2 is:

If the value of Sig. > = 0.05 then the path coefficient is not significant

If the value of Sig. <A= 0.05 itsignificant path coefficient

appears that R2 of 0.214 means that 21.4% of the variability of the variable-

confidence (X3)can be explained by the refereeing knowledge variable (X1)and the leadership style (X2). So the error ( ) = 1- R2 = 1-0.214 = 0.786. The path coefficient (X1) to (X3) or (p31) = 0.268 and (X2) to (X3) or (p32) = 0.395, obtained the value of Sig. = 0.041/2=0.002 < 0.05 and Sig. = 0.003/2=0.02 < 0.05.

# **Substructural Testing 3**

Testing on structural model 3 is the variable of refereeing knowledge (X1), leadership style (X2), self-confidence (X3) on the performance of hockey referees (Y). The basis for the decision of testing structural model 3 is: If the value of Sig. > = 0.05, then path coefficient is not significant

If the value of Sig. < = 0.05, then significant path coefficient R2 of 0.068 means that 6.8% of the variability hockey referee performance variable (Y) can be explained by the refereeing knowledge variable (X1),leadership (X2)and confidence (X3).So the error ( ) = 1- R2 = 1 - 0.068 = 0.932. The path coefficient (X1) to (Y) or (py1) = 0.256, (X2) to (Y) or (py2) = 0.257 and (X3) to (Y) or (py3) = 0.310 is obtained value sig. = 0.00/2 = 0.00 < = 0.05 for (py1), Sig. = 0.00/2 = 0.00 < = 0.00 for (py2)

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and Sig.= 0.000/2 = 0.000 < = 0.05 for (py3).

## a. Hypothesis 1

The individual test of variables regarding refereeing knowledge on the performance of hockey referees obtained the results of the path coefficient Py1 = 0.256 with a value of Sig. 0.001/2 = 0.0005 < = 0.05, so Ha is accepted andHo is rejected. That is, there is a direct influence of refereeing knowledge on the performance of hockey referees. To determine the magnitude of the direct influence of refereeing knowledge on the performance of hockey referees is by:

=y12 x 100%

 $= 0.2562 \times 100\%$ 

= 6.55%

Based on these results, the magnitude of the direct influence of refereeing knowledge on the performance of hockey referees is 6.55%, while the rest are other factors that are not explained in this study.

## b. Hypothesis 2

Individual test of leadership style variables on the performance of hockey referees obtained the results of the path coefficient Py2 = 0.257 with a value of Sig. = 0.001/2 = 0.0005 < = 0.05, then Ha accepts andHo is rejected. That is, there is a direct influence of leadership

style on the performance of hockey referees.

To determine the magnitude of the direct influence of leadership style on the performance of hockey referees are as follows:

=v22 x 100%

 $= 0.2572 \times 100\%$ 

=6.60%

Based on these results, the magnitude of the direct influence of leadership style on the performance of hockey referees is 6, 60%, while the rest are other factors that are not explained in this study.

# c. Hypothesis 3

Individual test of the confidence variable on the performance of hockey referees obtained the results of the path coefficient Py3=0.310 with a value of Sig. 0.000/2=0.000<=0.05, then Ha accepts andHo is rejected. So that means, there is a direct influence of self-confidence on the performance of hockey referees.

To determine the magnitude of the direct influence of confidence on the performance of the hockey referee is as follows:

 $=y32 \times 100\%$ 

 $= 0.310 2 \times 100\%$ 

= 9.6%

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Based on these results, the magnitude of the direct effect of confidence on the performance of hockey referees is equal to 9.6%, while the rest are other factors that are not explained in this study.

## d. Hypothesis 4

Individual test of the confidence variable on the performance of hockey referees obtained the results of the path coefficient P31= 0.268 with avalue Sig. 0.041/2 = 0.02 < = 0.05, then Ha accepts andHo is rejected. So that means, there is a direct influence of self-confidence on the performance of hockey referees.

To determine the magnitude of the direct effect of confidence on the performance of hockey referees are as follows:

- $=312 \times 100\%$
- $= 0.268 2 \times 100\%$
- =7.1%

## e. Hypothesis 5

Individual test of the confidence variable on the performance of hockey referees obtained the results of the path coefficient P32=0.395 with a value of Sig. 0.003/2=0.01<=0.05, then Ha accepts andHo is rejected. So that means, there is a direct influence of self-confidence on the performance of hockey referees.

To determine the magnitude of the direct influence of self-confidence on the

performance of hockey referees are as follows:

- $=322 \times 100\%$
- $= 0.395 2 \times 100\%$
- = 15.6%

## f. Hypothesis 6

How to find the indirect effect of refereeing knowledge through self-confidence on the performance of hockey referees by using the product of the path coefficient ( $\rho$ 31) with path coefficient ( $\rho$ y3), the following results will be obtained: Indirect effect of X1 on Y through X3 (X1 $\rightarrow$  X3 $\rightarrow$ Y):

- =31 xy3
- $= 0,268 \times 0.310$
- = 0.083 The

total effect given is direct influence + indirect effect, then the following numbers are obtained:

Total Direct Effect (py1) and Indirect (p31.py3):

- = py1 + (p31.py3)
- =0.256+0.083
- = 0.339

The total contribution of direct and indirect influence:

- $= 0.3392 \times 100\%$
- = 11.4921%

Based on the results above, the total direct influence of referee knowledge on the performance of hockey referees and

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indirect influence is given through confidence of 0.114921 or 11.4921%.

## g. Hypothesis 7

To find the indirect effect of leadership style through self-confidence on referee performance is the result of multiplying the path coefficient ( $\rho$ 31) with the path coefficient ( $\rho$ y3), so that the following results are obtained:

The indirect effect of X2 on Y through X3 (X2 $\rightarrow$  X3 $\rightarrow$ Y):

- =32 xy3
- = 0.395 x

0.310 = 0.12245 The

total effect given is direct effect + indirect effect as follows:

Total Direct Effect (py1) and Indirect (p31. py3):

- = py2 + (p32.py3)
- = 0.257 + 0.12245
- = 0.37945

Total contribution of direct and indirect effects:

- $= 0.379452 \times 100\%$
- = 14.40%

## Discussion

1. Research Results Shows that there is a direct influence performance of hockey referees.

of refereeing knowledge on the From the results of the research made in the questionnaire and distributed to 50

respondents about the knowledge of refereeing that has been answered by the hockey referee, the findings obtained are in the interval class >26 no response en who answered in the very good category. In the 23-25 interval class, there were 14 people who answered in the good category with a percentage of 28%. Furthermore, in the 20-22 interval class, there were 21 people who answered in the sufficient category with a percentage of 42%. In the 17-19 interval class there were 10 people who answered in the less category and the percentage was 20%. Furthermore, in the last interval <16, there were 5 people who answered in the very poor category and the percentage obtained was 10%.

2. The results of the study show that there is a direct influence of the referee's leadership style on the performance of the hockey referee.

From the results of the research made in the questionnaire and distributed to 50 respondents about the knowledge of refereeing that has been answered by the hockey referee, the results obtained are that in the interval class> 99 there is only 1 person who answered in the very good category and the percentage gain was 2%. In the 90-98 interval class there were 16 people who answered in the

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good category and the percentage was 32%. Furthermore, in the 81-89 interval class there were 20 people who answered in the sufficient category and the percentage was 40%. In the 72-80 interval class there are 10 people who answer in the less category and the percentage is 20%. Finally, in the interval class <71, there were 3 people who answered in the very poor category and the percentage was 6%.

3. The results of the study show that there is a direct influence of referee's confidence on the performance of hockey referees.

From the results of the research made in the questionnaire and distributed to 50 respondents about the knowledge of refereeing that has been answered by the hockey referee, the results obtained are that in the interval class> 97 there are 2 people who answered in the very good category and the percentage gain was 4%. In the class interval 86-96, there were 15 people who answered in the good category and the percentage was 30%. Furthermore, in the 75-85 interval class there were 20 people who answered in the sufficient category and the percentage was 40%. In the 64-74 interval class there are 9 people who answer in the less category and the

percentage is 18%. Finally, in the <63 interval class, there were 4 people who answered in the very poor category and the percentage was 8%.

4. The indirect effect of knowledge of arbitration on the performance of referee hockey through confidence referee hockey

Based on the result of analysis that the value of coefficient lines indirect effect which Based on the result of analysis that the value of the path coefficient indirect influence given the variables intervening (P31+ Py3) greater compared to the value of the path coefficient of direct influence (py1) refereeing knowledge on the performance of hockey referees, p31(0.268) + py3(0.310) = 0.578 > 0.256. That is, there is an indirect effect given by the referee's knowledge variable on the results of the hockey referee's performance.

The results of this study can be assumed that hockey referees who have an understanding of good refereeing knowledge can certainly achieve good hockey referee performance also supported by the confidence possessed by the hockey referee himself and the research carried out can be accepted empirically. The rationale that has been presented in the conceptual framework

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can be tested in real terms. Based on these findings, it can be interpreted that hockey referees who understand well the knowledge of good refereeing will have a significant effect on the performance of hockey referees, especially when combined with the confidence of a good referee, it will be easy for him to perform a good and correct refereeing performance. in a match.

5. The indirect effect of leadership style on the performance of hockey referees through the confidence of hockey referees.

The analysis test results state that the value of the indirect influence path coefficient given by the variable intervening (p32 + py3) is greater than the direct influence path coefficient value (py2) leadership style Against the performance of the hockey referee. P32  $0.395 + Py3 \ 0.310 = 0.705 > Py2 \ 0.257$ . That is, there is an indirect effect given by the leadership style variable on the performance of the hockey referee.

The results of this study can be assumed that the leadership style that a hockey referee should have and run it well can certainly help the match run well to achieve good referee performance also supported by the confidence possessed by hockey referees

and the research conducted can be accepted empirically. The rationale that has been presented in the conceptual framework can be tested in real terms. Based on these findings, it can be interpreted that a good leadership style and can do it well will have a significant effect on the performance of hockey referees, especially when combined with good self-confidence, it will facilitate or assist the referee in leading the course of a match.

### CONCLUSION

of Based on the results hypothesis testing and discussion, conclusions were obtained from exogenous variables, namely refereeing knowledge (X1), leadership style (X2), and self-confidence (X3), as well as the endogenous variables of learning outcomes. Referee performance (Y) are as follows:

 a significant difference between the knowledge of arbitration (X1) on the performance of referee hockey (Y).
 This means that if the referee has sufficient and extensive refereeing knowledge, it will support or facilitate the performance of the hockey referee in leading a hockey match.

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- 2. A significant difference between leadership style (X2)the performance of the referee hockey (Y). This means that if a referee hockey has a leadership style that is well in the lead of the match, referee can be proactive in addressing the negative aspects in a match then the performance of the referee's hockey will be a very good
- 3. There is significant relationship between confidence (X3) on the performance of referee hockey (Y). This means that if the referee's confidence level in leading the match is high, he can overcome problems in the match and within himself, the hockey referee can control his confidence and make the referee's performance better.
- 4. There is the influence of knowledge of arbitration (X1) to the self-confidence (X3). This means that the higher the level of knowledge of a hockey referee, by leading the match based on the knowledge of a referee, the level of referee performance is also higher.
- 5. There is the influence of leadership style (X2) of the self-confidence (X3). This means that if the higher or better leadership style a hockey

- referee then the better the strength of character,
- 6. are the indirect effect of the knowledge of arbitration (X1) on the performance of referee hockey (Y) through confidence (X3). This means that the higher the level of knowledge of a hockey referee, the higher the level of confidence of the hockey referee in leading the match, so that it will affect the performance of the hockey referee.
- 7. There is an indirect effect between leadership style (X2)the performance of hockey referees (Y) through self-confidence (X3). This means that the better a referee has a leadership style in the form of mental skills and can be proactive in overcoming various negative aspects, the referee will have a high level of confidence. So that it will affect the performance of the hockey referee.

#### **REFERENCES**

- Afif, U. M., Rumini, & Nasuka. (2016). Hubungan Kecemasan, Percaya Diri Dan Motivasi Terhadap Kinerja Wasit Bola Voli. Journal of Physical Education and Sports, 5(2), 75–82.
- Anatasia, T. (n.d.). Manajemen Sumber Daya Manusia untuk Bisnis yang Kompetitif.
- Andhara, B. A., Umaro, F. R., & Lubis, C. H. T. (2018). Knowledge

Mochamad Egi Margiyan, Sri Nuraini, Hernawan

- Management: Strategi Mengelola Pengetahuan agar Unggul di Era Disrupsi. PT. Pustaka Gramedia Utama, Jakarta 2018.
- Anggraeni, N. (n.d.). **PENGARUH** KEMAMPUAN DAN **TERHADAP** MOTIVASI KINERJA PEGAWAI PADA SEKOLAH TINGGI **SENI** INDONESIA (STIS) BANDUNG.
- Bunker, B. B., Major.B., & Instone, D. (1983). Gender, Self Confidence, and Influences Strategis: An Organizational Simulatiom. APA Inc.
- Corrigana, S. L., Dwyer, D. B., Harvey, B., & Gastina, P. B. (2018). The influence of match characteristics and experience on decision-making performance in AFL umpires. Journal of Science and Medicine in Sport. https://doi.org/https://doi.org/10. 1016/j.jsams.2018.06.005
- Febi **INSTRUMEN** Aulia. (2016).WASIT BOLA PENILAIAN VOLI. Jurnal Sport Pendagogy,
- Fuller, C.W., Junge, A., & D. (2004). of Assesment Football References Decisions in Incedent Leading to Player Injuries. The American Journal of Sports Medicine. 32. https://doi.org/DOI: 10.1177/0363546503261249
- Gable, M. (2013). Umpiring Must Keep Pace with Hockey. The Journal Health and Physical of Education. https://doi.org/10.1080/2326724 0.1938.10624579
- Hayasi, V. (1998). Sourcing of Sport Confidence. Journal of Sport & Exercise Psychology, 2(1).

- Hernawan Rosyadi, Mulyana, & Mulyana, (2017).D. **HUBUNGAN TINGKAT KEBUGARAN JASMANI** DENGAN RASA PERCAYA DIRI WASIT BOLA BASKET. 10.
- Komarudin, D. M. (2015). Penerapan Metode Latihan Keterampilan Psikologis untuk Meningkatan Kinerja Wasit Sepakbola. Jurnal Kajian Pendidikan, 5(2), 179-190.
- Larkin, P., Berry, J., Dawson, B., & Lay, (2017).Perceptual В. and decision-making skills of football Australian umpires. International Journal Performance Analysis in Sport, 8668. https://doi.org/10.1080/2474866
  - 8.2011.11868562
- Spice, C. A., Gordon, D. A., Smith, L., & Johnstone, J. A. (2017). Work rates of international hockey umpires. International Journal of Performance Analysis in Sport. https://doi.org/10.1080/2474866 8.2017.1353264
- (2016). Statistika Sugiyono. Untuk Penelitian. Alfabeta.
- Weston, M., Castagna, C., Impellizzeri, F. M., Rampinini, E., & Breivik, S. (2010). Ageing and physical match performance in English Premier League soccer referees. Journal of Science and Medicine Sport, 13. 96–100. https://doi.org/10.1016/j.jsams.2 008.07.009
- Wilson, A. W., & Mock, S. E. (2013). Association of certification level and assertiveness with accuracy of calls among ice hockey referees. International Journal of Sports Science and Coaching, 8(3),505-511.