Predictive Factors of the Success of Handball Project Trainees in Shewarobit Town Administration

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Abstract: The main objective of this study was to investigate the Predictive factors of the success of handball project trainees in shewarobit town administration. The study adopted an explanatory research type. Both quantitative and qualitative research approaches were used. The only primary data source was used. The target populations were all project trainees, coaches, project coordinators, and sports work process team leaders. A total of 65 samples were selected via censes sampling technique. The primary data was collected using questionnaires, interviews and observation. Both quantitative and qualitative data analysis approaches were employed, by using descriptive statistics and inferential statistics through SPSS version 20.0. The finding of the study indicated that the mean value of all the independent variables (Training methods, materials and infrastructure availability, Trainees' interest and attitude, and concerned body participation) were found within a range between 2.85 to 3.24, showing a moderate extent of the practice in the study area. In addition, there is a significant positive relationship between all the predictor variables and trainees' success. And also, the finding of the study shows that the predictor variables explained or affect approximately 80.2% (R^2) of the variance of trainees' success and the remaining 19.8% is explained by the other factors. In summary, the study found that three of the independent variables (training method, materials and infrastructure availability, and concerned body participation) were found to be statistically significant predictors of the dependent variable; the result was triangulated by interview and observation. Therefore, based on the finding, the study recommends that special attention must be given to these three variables or factors to enhance the success of trainees; further studies be carried out considering the interaction of other variables that influence Trainees' success.

Keywords: Handball Project, Training Practice, Trainees' Success

1. Introduction

The historical background of handball as it's spoken by sport philosophers; man has been done all activities using his hand, rather than his foot. Because of this handball is one of the oldest games in the world like athletics, box and wrestling [12].

At the beginning of the 20th century, the first rules for games similar to handball were written, especially in Denmark (Håndbold), Czechia (Házená), and Germany (Feldhandball). A common set of rules was established and the first national and international associations were created to govern, promote and develop the sport [13].

Handball is one of the popular team games and the fastest growing sport in the world. The modern handball game of today was formed in Europe. Modern handball is a fast game,

characterized by incredible athletic performances. Modern handball players can perform many different moves like jumping, running, change of directions, and technical movements in a very short period and with an order determined by the tactical situation [3].

Handball sport is the one that goes through coaching. It is an Olympic sport played across the world at the woreda, regional, national, and international levels from amateur to professional levels by men and women. Handball is a fast-moving team sport or a fast-paced high-scoring Olympic sport next to basketball sport and the second most popular team sport in Europe (next to football sport). It requires mostly anaerobic capacities which enables to perform many accelerations, sprints, turns, jumps, and direct body contact with opponents, for instance, while shooting, defense, and offense as well as a high level of aerobic capacity, [4, 6].

Handball is a body contact sport that requires different physical fitness qualities. [6].

In addition to physical fitness qualities, handball players are expected to develop overall handball skills such as technical-tactical skills of passing, catching, dribbling, shooting, faking, pivoting, and offense and defense, and so on. It seems that having physical fitness qualities only is not enough; rather it also needs technical and tactical skills of the sport [1].

In connection with the above discussed elements in the development of this event in Ethiopia, especially in the Shewa Robit Town, there is no scientific research conducted. These issues motivated the researcher to carry out the research that is applicable to the development of handball in the area.

However, the main reason for this study was start from ten years ago our wereda handball team result continuously decrease year to year in zonal competition. Hence, this is the source of inspiration for the researcher which initiates him to research the pre-described issue to fill the gap of handball player success on grassroots level. For this reason, this study aimed to investigate the Predictive factors of the success of handball project trainees in shewarobit town administration. The researcher wanted to fill the gap stated above, by incorporating the four- Predictive factors of handball project training practice; Training methods ad, Material and infrastructure availability, trainee's interest and attitude, and concerned body participation.

The researcher formed the following basic hypothesis which will be tested to support the findings of this study. These are:

H1: There is a positive and significant relationship between the Training method and the success of trainees in the handball project of Shewa Robit Town.

H2: There is a positive and significant relationship between material and infrastructure availability and the success of trainees in the study area.

H3: There is a positive and significant relationship between trainees' interest and attitude and the success of trainees in the study area.

H4: There is a positive and significant relationship between concerned body participation and the success of trainees in the study area.

The main objective of this study was to investigate the Predictive factors of the success of handball project trainees in shewarobit town administration.

The specific objectives of this study were:

1. To evaluate the effect of training methods on the success of trainees in the handball project of Shewa Robit Town. Affect distress.
2. To examine the effect of material and infrastructure available on the success of trainees in the study area.
3. To assess the effect of trainee's interest and attitude on the success of trainees in the study.
4. To ascertain the influence of sport administrative body participation on the success of trainees in the study area.

2. Research Methodology

2.1. Description of the Study Area

The study was conducted in one of the town Administration in Ethiopia, called Shewarobit town Administration, which is found in Amhara Region, North Shoa Zone. The town is located in, north-central Ethiopia. It is located 225 km to the North of Addis Abeba along Dessie road 95 km away from Debre Berhan. The town is located 9050′16″and 100 01′32″ north latitude and 390 52' 58" and 390 54′ 9″ east longitude with an area of 992.5 hectares in the rift valley. Most parts of the area are found at 1280 meters above sea level.

The town is bordered by the Oromia liyu zone in the North, Tarmaber woreda in the South, Kewot woreda in the West, and Afar Regional State in the East. The town has nine kebeles with a total population of about 62,352 of which 30,095 (48.27%) were men and 32,257 (51.73%) were women [7].

2.2. Research Design

The main objective of this study was to examine the effect of handball project training practice on the success of trainees in the case of Shewa Robit Town Administration. To achieve this objective, an explanatory research type had been adopted. Hence, the main purpose of explanatory (casual) research type is to explain why events have occurred, to build or test theory [14]. So, it had allowed the researcher to get information about the current situation under investigation. Both quantitative and qualitative research approaches were used, where data was collected using a questionnaire, interview and observation.

2.3. Population of the study

The target populations of the study were all project trainees, coaches, project coordinators, and sports work process team leader of Shewa Robit handball project site, a total of 65 samples (30 handball trainees from the kobo project and 30 from the Shewa Robit project), two (2) coaches and two (2) project coordinators, and a sport process team leader.

2.4. Sample and Sampling Techniques

North Showa Zone has three handball project sites including ShewaRobit Out of these handball project sites ShewaRobit handball project site was selected purposefully. This site has relatively better access to transport as well as proximity to a researcher's place. Moreover, since the numbers of the total population were below 100 and they were directly concerned with the issue under investigation; all were included in the study for keeping its validity and reliability. Accordingly, among this target population, 60 handball trainees to be questionnaire respondents and coaches, project coordinators, and a sport process team leader to be questionnaire and interview respondents were selected via censes sampling technique.

2.5. Data Gathering Tools

According to [2] combining several methods in the same single study is important to triangulate the result of each method involved. Relying on a single method can adversely affect the reliability and validity of the results and ultimately affect the conclusions drawn and the recommendations made. Accordingly, the methods of data collection instruments used in this study were questionnaires, interviews, and observation.

2.5.1. Questionnaire

The researcher used a self-made questionnaire which contains close ended items basis to obtain first-hand information through direct solicitation of responses from the sample respondents. For the purpose of this study, depending on the variables, questionnaire items were mainly constructed in the form of rating scale category, with five-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). Similar questionnaire was prepared for trainees, coaches, project coordinators and sport process team leader. Questionnaire was translating in to Amharic on the time of data gathering, but uses the English one for analysis purpose.

2.5.2. Interview

In order to strength the findings obtained through questionnaire, a semi-structured interview was also conducted with key informants, such as coaches, project coordinators and sport process team leader. It misplaced for 25-30 minute each in different time and place; according to the respondents' volunteering and favourable situation on the idea of predictive factors of the success of handball project trainees in shewarobit town administration.

2.5.3. Observation

To investigate the actual practice, the researcher attended the field and observed the training methods used, method of demonstrating the training session, availability of training equipment and infrastructure and coaches' and trainees' communication and feedback using a field observation checklist. The researcher just observed the activities and took notes to facilitate data transcription and analysis. Through the time of three consecutive days of each handball project on training time (morning 6:00-7:30 pm and afternoon 5:00-6:30 am), enough data was obtained based on field observation.

2.6. Method of Data Analysis and Presentation

After the data was collected, the researcher edited them to ensure their completeness and consistency, and then coded and classified them to ensure sufficient analysis. Both quantitative and qualitative data analysis approaches were employed, through SPSS version 20.0. The data that was collected through a close-ended questionnaire from all respondents were analyzed quantitatively by using descriptive statistics (mean and standard deviation) and inferential statistics (the use of bivariate correlation and multiple linear regression analysis). The data that was collected through interviews and observation were analyzed qualitatively using narrative form correspondence to the main research questions. Finally, the analyzed data were presented using various statistical tools, in the form of tables that facilitate the description and explanation of the findings.

2.7. Reliability of the Instrument

The reliability test is an important instrument to measure the degree of consistency of an attribute that is supposed to measure. Cronbach's alpha is one of the most commonly accepted measures of reliability. It measures the internal consistency of the items on a scale. The normal range of Cronbach's coefficient alpha value ranges between 0-1 and the higher values reflect a higher degree of internal consistency. Generally, a reliability coefficient of 0.70 or higher is considered acceptable [15].

More interestingly, the reliability or internal consistency of the research questions was evaluated using the Cronbach's alpha test, which is the most common method to measure the reliability or internal consistency of a set of items or scales. Cronbach's Alpha result is presented in the table below.

***Table 1.** Measure of internal Consistency-Cronbach's alpha.*

Dimension	No of items	Cronbach's alpha	Remark
Training methods	10	.954	Reliable
Material and infrastructure availability	6	.943	Reliable
Trainees' interest and attitude	10	.937	Reliable
Concerned body participation	8	.943	Reliable
Trainees' Success	9	.944	Reliable

To test the reliability for the items of each concept, the Cronbach's alpha coefficient was calculated for each variable. The reliability result for each variable is presented in table 1, which shows a Cronbach's Alpha value ranges from 0.937 to 0.954, greater than 0.7, which indicates that each of the independent and dependent variables had acceptable internal consistency or all measures/scales were reliable [5]. That is, the result suggests that the items have relatively high internal consistency.

2.8. Ethical Considerations

The purpose of the study is clarified to the participants and the researcher has asked their permission to answer questions in the interview guide. The researcher will also inform participants that the information they are to be used only for the study purpose as well as to maintain the confidence of the respondents`, the researcher promised them that their responses are to be kept confidentially. Moreover, no other

unethical methods have been used to collect data for the   study without the consent of the data sources.

3. Results

3.1. Correlation Analysis

Table 2. Correlation analysis.

		Training methods	Materials and infrastructure availability	Trainees' interest and attitude	Concerned body participation
Trainees' Success	Pearson Correlation	.760**	.818**	.801**	.865**
	Sig. (2-tailed)	.000	.000	.000	.000

Pearson correlation test was conducted to know the degree of relationship between the independent variables and the dependent variable. The correlation analysis results indicated that there is a strong relationship between Training methods and trainees' success (r=0.760, p<0.05). Moreover, there is a strong relationship between materials and infrastructure availability and trainees' success (r =0.818, p = 0.001); and there is a strong relationship between Trainees' interest and attitude and trainees' success (r = 0.801, p<0.05). The results further revealed that there is a very strong correlation between concerned body participation and trainees' success (r = 0.865, p<0.05).

3.2. Regression Analysis Results

Table 3. Model summary table.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.895[a]	.802	.788	.35392

Regression Analysis was also computed to show the impact of variables. As indicated in the model summary analysis, the results of the model summary revealed that as explained by R square, these independent variables affect approximately 80.2% of the variance of success of trainees in the handball project in Shewa Robit Town and the remaining 19.8% is explained by the other factors.

Table 4. Regression coefficient Result.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		Beta	Std. Error	Beta		
1	(Constant)	.445	.209		2.128	.037
	Training methods	.219	.108	.207	2.015	.048
	Materials and infrastructure availability	.350	.128	.408	2.746	.008
	Trainees' interest and attitude	-.204	.176	-.205	-1.165	.249
	Concerned body participation	.490	.099	.549	4.926	.000

As shown in the linear regression coefficient result, it can be seen that the coefficient of Training methods was (β=0.219), showing that a one-unit increase or positive change in Training methods practice would lead to a 0.219 unit increase in the level of Trainees' success In line with a study by [8]. found that complex strength training develops abilities important to handball performance. [9]. also found that the participation training program resulted in improvement of playing ability and performance-related variables.

The regression result also indicates that the coefficient of materials and infrastructure availability was also (β= 0.350), which means it has a 35% effect on the success of Trainees. In line with this, as to [11] also found that material and environmental conditions have a significant impact on the team handball performance.

Furthermore, the coefficient of concerned body participation is also (β= 0.490), implying a unit change in this practice would lead to a 0.490 unit increase in the level of success of trainees. This result is in line with the findings of the study by [10] confirmed that lack of support from responsible bodies, such as lack of family support of trainees to being handball athlete was the major factor that affects the participation and developments of handball players. However, the standardized coefficient of trainees' interest and attitude is (β= -0.204), indicating statistically insignificant, given the p-value is greater than 0.05 as the critical value.

4. Conclusion

The result of the Correlation analysis further confirmed that there is a significant positive relationship between all the predictor variables (Training methods, materials and infrastructure availability, Trainees' interest and attitude, and Concerned body participation) and trainees' success, with the statistical significance (P-value) <0.05.

The finding of the linear regression coefficient of the study shows that three of the main factors or independent variables (Training methods, materials and infrastructure availability,

and concerned body participation) were found to be statistically significant and good predictors of the dependent variable (success of trainees) during the study period. Thus, this result indicates that 80.2% (R square) of the variance of trainees' success and the remaining 19.8% are explained by the other factors or independent variables, in the case of the handball project in Shewa Robit Town.

Therefore, based on the hypotheses of the study, the following conclusion arrives:

1) Training methods positively affect the success of trainees.
2) Materials and infrastructure availability positively affect the success of trainees.
3) Participation of concerned bodies positively affect the success of trainees.

Overall, from the finding of the study, it can be concluded that three of the independent variables (training method, materials and infrastructure availability, and concerned body participation) were found to be statistically significant predictors of the dependent variable (success of trainees). Hence, the study demonstrated that with effective training methods, materials and infrastructure availability, and concerned body participation practice, the handball project of Shewa Robit Town can achieve great success for trainees and enhance performance. Therefore, proper application of these factors will go a long way to benefit both the trainees and the organization as a whole.

Conflict of Interests

The authors declare that they have no competing interests.

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