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The impact of Sports Activities on Economic Survival, Social Life of Women, and What do Big Data Analysis reveals about Social Life of Sports Women

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Abstract

Economic Survival and Social Support in Sports activities is a multifaceted area of research interest. Active participation of women in sports activities has a significant contribution to the growth and success of the sports industry. This article seeks to discuss the impact of sports activities on sportswomen's economic survival and social life. This is done using questionnaire themed around issues such lack of availability of time, limitations of knowledge, family-related and financial difficulties, and nature of activities, all of which can potentially impact the social life of sportswomen. The study shows that economic survival is a significant part of sport's activities as well as the social life of sportswomen. Economic survival supports the social life of sportswomen. The current article highlights the findings from big data analysis pertaining to the social life of sportswomen. The paper uses Big Data Analysis to examine the social life of sportswomen. However, BDA is a complex process resulting from data sources' diverse and unstructured nature. Big Data Analysis (BDA) is critical in the sports field, as it covers the data at the macro-level (such as the national sports industry, teams, and individuals). It was analyzed using the AMOS 23v and SPSS 26v after being collected from female sports players belonging to a geographically diverse region. The study found that there is a significant association between sports activities, economic survival, and the social life of sportswomen.

Keywords: Sports Activities, Economic Survival, Social Life, Sportswomen, Big Data Analysis, Performance, Health Benefits

Introduction

Sports activities play a significant role in developing mental, social, economic, and physical traits of the human body (Moser, 2019). Sports professions need to understand how different cultural and social factors can affect life despite the general agreement on men and women's unequal rights and opportunities in sports activities. Researchers have emphasized the active participation of people in sports activities and argued that this comes with numerous health benefits. An increasingly large number of countries now actively support the participation of women in sports activities (Bai & Bai, 2021).

This article will primarily explore the impact of sports activities on sportswomen's economic survival and social life (Kim et al., 2014). Furthermore, the article will highlight what big data analysis reveals about the social life of sportswomen. In 2017, Markula discussed the adoption of the feminism-in-sports approach and stated that feminist ideals call for the equal participation of women and men in sports, regardless of the traditionally patriarchal systems of society (Baroni & Oliveira Pena Costa, 2021). Women have a long history of participation in sports (Doob, 2018). While there have been numerous occasions where women playing sports have been discriminated against, there are also significant achievements by female athletes, pointing to the progressive shift towards gender equality and women empowerment over time (J. Adriaanse & Schofield, 2018).The economic survival of sportswomen has become an important topic for government and welfare organizations, and its importance has been highlighted in existing literature (Muhammad Talha, Azeem, Sohail, Javed, & Tariq, 2020). Economic survival has become an integral part of female players' overall well-being, which

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manifests a level of satisfaction in sportswomen and takes stock of the broader aspects or dynamics of their social life (J. A. Adriaanse, 2019). Financial and economic well-being has been discussed by CFPB (Consumer Financial Protection Bureau), and it states that economic survival is a condition in which individuals have control over their monthly and daily finances (Muhammad Talha, 2021). They can absorb economic trauma and achieve financial freedom and financial goals, allowing them to enjoy the recreational activities of life. Regular participation in sports activities is associated with economic survival, financial well-being, and improved health (Muhammad Talha, 2020). Compared to physically inactive adults, individuals engaged in active physical activities or movement have a lower risk of cardiac disease, including heart attacks, cardiac arrest, heart stroke, diabetes, high blood pressure, obesity, and high cholesterol(Hartmann-Tews, 2018).

Active participation can also reduce the chances of cognitive impairment, depression, and some types of cancers. Furthermore, it can improve an individual's sense of well-being, maintain bone density at a healthy level, improve pulmonary function and help build a better mood by overcoming the lack of active physical movement (Pharr, Lough, & Terencio, 2020). Evidently, adults take 150 minutes or more for moderate-intensity aerobic exercise per week. Moreover, the report of DHHS (The Department of Health and Human Service) states that adult should dedicate more than an hour for full-intensity aerobics exercise, or for the combination of both (full-intensity aerobics or moderate-intensity aerobics) (Muhammad Talha, Sohail, & Hajji, 2020). In the United States of America, regardless of various health benefits linked with physical activity, only 53.7 per cent of adults over 18 participate in aerobic physical activity, and 50 per cent of women meet the goal of sports activities (Enz et al., 2021).

Recommendations for sports activities can be obtained even in leisure time and may be divided into four categories of active physical participation: conditioning exercises, sports activities, home-based exercises, and recreational activities (Pharr et al., 2020). Physical exertion and skills are required in human activities of active involvement in sports activities, leading to a competitive nature (Mogaji, Badejo, Charles, & Millisits, 2021). Many social demographic characteristics affect the intensity and frequency of active participation in sport's activities (Pharr et al., 2020) These characteristics generally include the gender, race, and age of the participant. Scholars state that women are less likely to engage in sport's activities than men, which is especially true for minority groups, such as Blacks, Asians, Non-Hispanics, and Hispanics (Laar, Shi, & Ashraf, 2019). Big Data Analysis refers to large-scale data that cannot be managed, analyzed, or stored using traditional database software.

Big Data Analysis differs from traditional data (Patel, Shah, & Shah, 2020). Due to a significant increase in unstructured data, Big Data Analysis has become an important part of modern research (Muhammad Talha, Li, & Masood, 2019). The primary use of Sports Big Data Analysis methods, platforms, and techniques is to examine the sports industry using big sports data which include an understanding of data security, data management, data storage, data pre-processing, and data processing (Muhammad Talha, Sohail, Tariq, & Ahmad, 2021). However, the analysis is done through diverse and unstructured data sources. Therefore, it is a complex process. In the context of sports, Big Data Analysis (BDA) is critical, as it covers the data at the macro-level (such as the national sports industry, teams, and individuals) (Hemachandra, Viduranga, & Gamalath, 2021). In this study, the main objective of using BDA is to increase the level of data accessibility and data quality for the decision-making process. This approach defines the potential value of big sports data (Morgulev, Azar, & Lidor, 2018).The acquisition of Big Data Analysis is the most significant part of the research, as it can help us expand research diversity (Schüler, Wegner, & Knechtle, 2014). The research is engaged with extremely complex data types (such as IoT (Internet of Things)). Sports Big Data Analysis has played a significant role in analyzing the sports industry because the data network is diverse in BDA (Zhan, 2020). It has a generally more complex structure and has different usage methods, techniques, and values for different purposes. In previous studies, Web Crawlers collected big data from online games (Muhammad Talha et al., 2020). Webpage analysis, link extraction, filtering the data, extraction of content, URL queuing, and crawling of data, are the six steps of Web Crawling (Muhammad Talha, 2020; Zhan, 2020).

Literature Review

Increased female participation in the field of sports has resulted in great strides for women in different countries and regions. Women's participation in sports have witnessed revolutionary developments since the 19th century, mainly in the United States and Europe (CN & Egaga, 2018). In 1896, the first Olympics took place. However, at the time, women were not allowed to participate, and this was an example of the role of women in society at large. Without the approval of the International Olympic Committee (IOC)(Contreira et al., 2019), the organizers allowed women to participate in two events and at least 11 non-governmental events in the second Olympics (Krause, Chan, Schmidt, Schreyer, & Torgler, 2021).

Globally, the literature on the issue of women's participation in sports has highlighted the multiple challenges faced by women in sports(Toffoletti, 2018). Foremost among these is the public perception of gender roles and stereotypes. They are perceived as weak and submissive (Contreira et al., 2019), and allowing them to participate in sports and allowing them in sports is seen as strengthening them, a trend that challenges male dominance. Previous studies on women's participation

have determined that congestion (Toffoletti & Thorpe, 2018), lack of time, lack of knowledge, family and financial difficulties, and areas of activity. The longest distance women faced the most important obstacles. The participation of Muslim women's in the sports industry is lower than that of women from other religions (Khalil et al., 2021). Religious affiliation, culture, environment, economic, social, and traditional factors play an important role in determining the level of participation of Muslim women in sports(Blagrove, Bruinvels, & Read, 2017). In the 21st century, some Muslim countries are still unwilling to support the participation of women in sports. However, some Muslim countries do support the participation of women in the field of sports, regardless of the competitive environment, but they nevertheless are still strict about their dress code(Oxford & McLachlan, 2018). Although the participation of women in sports has increased, still, women in sports face significant challenges (Takamine, 2018). The current literature states that sport's activities lead to efficient economic survival and provide health benefits to players.

Furthermore, current literature states that hegemonic femininity works in favors towards a better social life for sportswomen (Doob, 2018; Enz et al., 2021). In 2015, the review study of Burton found that masculinity is institutionalized in sports organizations. As a result, a recognized factor of gender inequality has been a core issue (Mogaji et al., 2021).

Further, the masculine activities are seen as a privilege; male coaches train female players how to install a more masculine behavior(Toffoletti & Thorpe, 2018). The hegemonic gender-bias is promoted in domestic sports organizations, and men's sports are particularly promoted more extensively in sports media coverage (Pharr et al., 2020). The literature from previous studies indicates that women's media coverage of sports have come to a unanimous agreement that female players are not well-represented in print media compared to the representation of their male counterparts (Fiorilli et al., 2021) Furthermore, media coverage has been in the spotlight discussion of sportswomen representation, and the focus is on their athletic ability rather than their gender roles and appearance (Enz et al., 2021). However, the researcher argued that women's media coverage should avoid negative societal reinforcement (such as representing sportswomen as beauty, femininity, and sexuality stereotypes) (Park, Ahn, Kim, & So, 2020). When it comes to media coverage, the focus of promotional material should be based on the player's abilities as opposed to their physical appearance(Khoo & Abidin).

The studies showed that media bridges the participation of females and the public. Therefore, the support of women's participation in sports activities is promoted by media bridges. Media can play an important role in building and raising awareness in public about women's participation in sports but should also overemphasize the achieved opportunities for women (Cofre Bolados et al., 2021). Recently, research has indicated a shift towards gender equality rather than traditional sports representation. Similarly, in 2019, Petty and Pope suggested that rapid media coverage for female soccer players has promoted the large-scale participation of female players in the UK (Gastélum-Cuadras et al., 2020). In 2020, the research work of Bowes investigated the professional golfers' print media representations and shifted to more equitable and equitable coverage for female professional athletes (Memon, To, & Vandelanotte, 2021). In 2017, Sherwood found that with time, the coverage of sports media is increasing, highlighting women's participation in sports activities and their success stories in Australia. The growth of sport's awareness can attract more sponsors, and therefore, promote greater exposure among athletes (Park et al., 2020). An additional source of income for athletes should be fixed, which will increase the earning potential of sportswomen through celebrity endorsement and brand sponsorship (Berzosa Sánchez, Gutiérrez, Bascuas, Arbones Arqué, & Bataller-Cervero, 2021). Where economic survival is concerned, representation in the media is a significant factor in ensuring women's economic well-being due to limited brand sponsorship, endorsement opportunities, and current pay gap.

Research indicates the existence of a gender pay gap in sports, especially professional basketball (Croce, Nguyen, & Raymond, 2021). In 2017, Berri stated that the WNBA gets 50% less of the league's revenue than the revenue of the NBA, where less than 20% of revenue is given to the sportspeople (Berzosa Sánchez et al., 2021). Moreover, there's a significant difference in the NBA players and between the wages paid to their counterparts at WNBA (Fathy Mohamed Mahran, 2021). Furthermore, women's sportswear becomes a barrier in gaining commercial brand approval over their male counterparts. Women's sports ideas engage with potential customers as an inappropriate platform for commercial brands. The most recent studies confirm the gap in gender pay in the sports field (Dixit et al., 2021).

Furthermore, in 2018, it was found that there are no sportswomen in Forbes' list of the 100 highest-earning athletes. In the Forbes List-2019, Serena Williams was the only woman in Forbes. Serena Williams and Naomi Osaka were the only two women on the 2020 list (Ly-Yang, Gómez-Calleja, Pérez-García, Pascual-Prieto, & Santos-Bueso, 2021). However, in 2016, more than one woman achieved the listed ranks of Forbes when Maria Sharapova came in spotlight with Serena Williams for the first time. In most cases, these female players have focused on the well-being of women sport's activities. Generally, there is a minor difference in economic survival and financial well-being for sportswomen; however, it also plays a significant role in their social life (Moser, 2019). The literature also explores the economic survival and financial well-being of male players relative to female players. For example, mainstream sports such as football and basketball have male players more than female ones. Therefore, male players receive a better salary and because of this financial well-being male players assume a more dominant position

in the sports industry. From gender perspective, is important to understand economic survival and financial well-being of sportspeople (Oksuzyan, Gumà, & Doblhammer, 2018). Economic survival is a significant part of sport's activities and the social life of sportswomen. Previous research calls for the need for efforts to promote understanding of economic survival for supporting the social life of sportswomen. Economic survival is the concept of enabling the current and expected standard of living and financial independence (Spaite et al., 2019). Economic Survival and Social Support in sports activities is a dynamic and multi-faceted area of research interest. In 2004, Joe and Greibel also covered economic survival and financial well-being, such as paying credit card bills each month, paying medical allowances, keeping a weapon or monthly budget, providing health benefits, saving money, and reducing the chances of sport's injuries (Savic et al., 2017).

Usually, data labeling requires additional human resources, but labeled data can be generated in a small amount. Labeled and unlabeled data for predictions can be explored using a semi-educated learning technique. For labeling the data, previous research also uses the technique of self-labeling to label the data accordingly (Solla Montero & Morales Rodríguez, 2021). The study indicates the advantages of the self-labeling technique. By using self-labeling techniques, researchers can create more labels by relying on research predictions. Furthermore, researchers can use graph-based label propaganda techniques (Bai & Bai, 2021). The study has also used the E-learning techniques classified according to graph-based label propaganda work and regression (Bai & Bai, 2021; Park et al., 2020). For managing labeled and unlabeled datasets, semi-educated learning techniques can be used. These techniques can be used for the classification of data as well as to train a model that returns one or more than one possible class (Mogaji et al., 2021). The research indicates that in the field of sports, the regression task can use semi-educated learning techniques to train a model that can predict real numbers by giving an example (Patel et al., 2020).

Furthermore, research have included the E-graph-based label propaganda. The application of E-graph-based label propaganda in social media networks, natural language process, information retrieval, and computer vision, has several benefits, and this can be done manually as well (Bai & Bai, 2021). However, a large project took many years to complete for traditional applications, which most machine learning users could not afford. Traditionally, active learning has been an important technique in the machine learning community to carefully choose the right examples for labeling, and in doing so, reduce costs while analyzing sports big data (Patel et al., 2020). Recently, another research has explored crowdfunding techniques (Nishimura & Suzuki, 2016)., finding that in order to ensure a high-quality table for analyzing Big Sports Data, there should be a strong emphasis on assigning tasks. Accuracy and Usability are the two aspects of the data programming model (Zhan, 2020). Compared to sports training with low-hand labels, training on multiple labels can lead to greater accuracy (Patel et al., 2020). In this way, Big Data Analysis can help in improving the social life of sportswomen. For noisy data labels and inaccurate labels, machine learning technology can be used (Zhan, 2020). For improving the data quality, there is a considerable of existing literature that offers guidance (Morgulev et al., 2018). The Holo-Clean representative cleaning system can use quality Rules, Value Relationships, and Reference Data for building a potential model to figure out how to generate data (Bista, 2015). Existing literature shows that experts have now developed tools for data cleaning which converts raw data into more useful information (Toffoletti & Thorpe, 2018).

Some cleaning models are designed, including the active clean model and TARS. For cleaning the data, the Active-Clean model sees data cleaning and data training as a form of the stochastic gradient (Mogaji et al., 2021). Whereas, by using Oracle, TARS can be used to solve the problem of clearing crowdsource labels (Doob, 2018). However, looking at the test sport's big data with noisy labels, it is possible to predict how well the model can work on real labels using the estimation technique (Dixit et al., 2021). Whereas TARS Model can determine which instances with training data and noise labels in Oracle. Therefore, it is done to maximize the expected model, and improve the accuracy of each noise (Jarraya et al., 2021). To achieve high-quality data labels, improving the quality of existing labels is a good solution (Park et al., 2020). They review data quality improvement through repeated labeling and a focus on improving the training label to include monitoring (Herdy et al., 2017). The quality improvement of data can provide Repeated Labeling, which could help in improving the label quality as well as model quality. Furthermore, it can be an effective technique for improving data labeling, and provide noisy labels, which could help improve label quality (Baryeh et al., 2021).

Research Framework

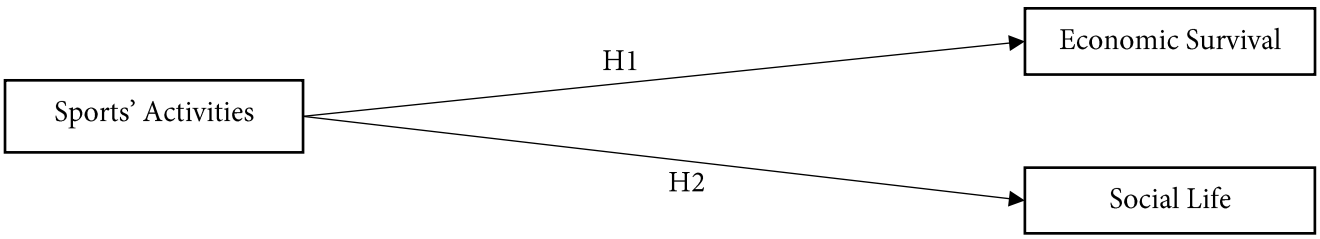

Figure 1. Research Model

Methodology

To better analyze the impact of Sports Activities on Economic Survival and Social Life, this paper has used three variables. Where, Sports Activities was used as an Independent Variable, Economic Survival and Social Life were used as Dependent Variables. The research was based upon primary data, and the data was collected from 250 respondents through a questionnaire. The validity of the questionnaire was assured by adopting the research scale of (Craig et al., 2003) and (Herrmann, Heumann, Der Ananian, & Ainsworth, 2013).

The data was process using AMOS-23v, and the basic statistical analysis was done using SPSS-26v. The target population of the study were Female Sports Players.

Where:

SA: Sports Activities

ES: Economic Survival

SL: Social Life

Analysis and Discussion

The relibility of the questionnaire was tested using the Cronbach's Alpha. Table 1 shows that the three adopted scales were greater than 0.7, which means that three scales are reliable.

Table 1

Reliability Test

Variable	Cronbach's Alpha	No. of Items
Sports Activities	0.765	5
Economic Survival	0.698	5
Social Life	0.785	6

Therefore, Figure 2 shows the fluctuation in recorded BMI of respondents in between 17-22. It was found that the BMI in between 18.5 to 24.9 is considered normal. Normal BMI indicated that most of our respondents were healthy and fit according to their weight and height scale. The following formula was used to calculate the Body Mass Index (BMI) of the respondents:

BMI= *Weight (kgs)/ (Height (m))*^{2}

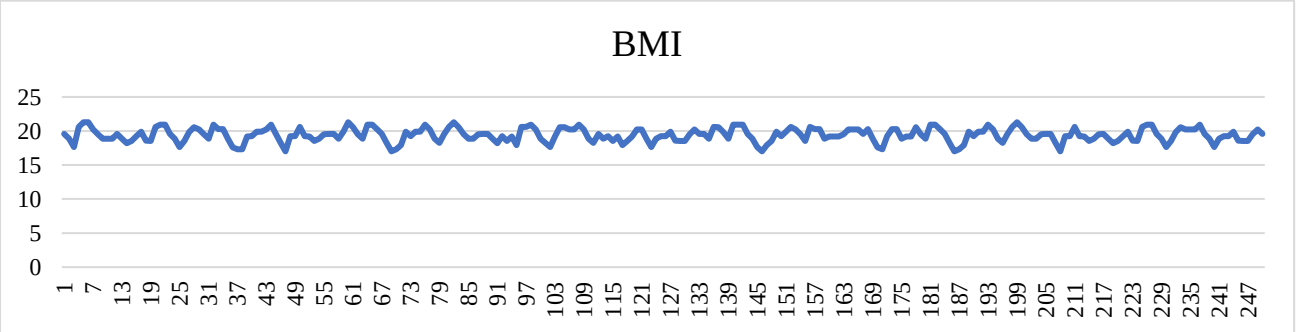

Figure 2. BMI of Respondents

Table 2

Socio-Physical Characteristics of Respondents

Sportswomen Physical Characteristics							
Age Group		**Height (m)**		**Weight (kgs)**	**Frequency**	**Weight (Kgs)**	**Frequency**
Years	**Respondents**	**Range**	**Frequency**	**55**	13	**59**	17.6
20-30	142	**1.70688**	63	**56**	26	**60**	19.2
30-40	64	**1.73736**	87	**57**	23	**61**	25.6
40-50	44	**1.76784**	50	**58**	12	**62**	8.0
Total	250	**1.79832**	50	**Total** 250			

Table 3

KMO and Bartlett's Tests

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.725
Bartlett's Test of Sphericity	Approx. Chi-Square	1148.543
	Df	120
	Sig.	.000

Table 2 shows the socio-physical traits of the respondent. Questions pertaining to these traits were asked from the respondents to predict their fitness.

Table 3 shows the KMO and Bartlett's test, and the results show that our KM is 0.725 (close to 1). Therefore, it shows that the factor analysis of the data is useful for the research. Table 4 shows the descriptive stats of the study, the value of minimum and maximum statistic is between 1-5, which shows that the data collected is acceptable. The skewness of variables is new to 0 (-1 to +1), and the data is positively skewed. The value of kurtosis of Economic Survival and Social Life is close to 1, but the value of sports activity was negatively skewed.

Table 4

Descriptive Stats

Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Stats	Stats	Stats	Stats	Stats	Stats	Std. Error	Stats	Std. Error
SprtAc	250	1.00	3.80	2.0824	.56775	.390	.154	-.299	.307
EcoSur	250	1.00	3.80	2.4968	.49324	.113	.154	.537	.307
SocLife	250	1.17	3.67	2.4467	.59000	.063	.154	.849	.307

Table 5 represents the correlation coefficient between SA, ES and SL. Sports Activities are considered an independent variable. SA shows a positive impact on Economic Survival and Social Life. The results for correlation are significant, therefore, the hypothesis of the study is accepted. 2-tailed correlation >.001 means that the significant level of variable is greater than 0.001, therefore, 0.001-0.005 shows significant results for the correlation of variables.

Table 5

Correlation

Correlations				
		SportActivities	**Economic Survival**	**Social Life**
Sports Activities	Pearson Correlation	1	.400**	.541**
	Sig. (2-tailed)		.000	.004
	N	250	250	250
Economic Survival	Pearson Correlation	.000**	1	.503**
	Sig. (2-tailed)	.005		<.001
	N	250	250	250
Social Life	Pearson Correlation	.541**	.503**	1
	Sig. (2-tailed)	<.001	<.001	
	N	250	250	250

**. Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis is the combined relation of Sport's Activities with Economic Survival and Social Life. Table 6 tests the correlation between SA (IV) and ES (DV), and SL (DV). The value of ES with SA is .349 and .562 with SL. The regression analysis is significant; therefore, the results are acceptable.

Table 6

Regression

Coefficients					
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	Std. Error	Beta		
1 (Constant)	1.773	.109		16.251	.002
1 Sports Activities	.347	.051	.400	6.871	.000
a. Dependent Variable: Economic Survival					
Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	Std. Error	Beta		
2 (Constant)	1.277	.120		10.656	.001
2 Sports Activities	.562	.056	.541	10.122	.001
b. Dependent Variable: Social Life					

Figure 3 and Table 7 present the Confirmatory Factor Analysis for the study, and the test was run to verify the factor-loadings affecting the variables in the model. As shown in the table, the values which are extracted from the result of confirmatory factor analysis are acceptable and show that the model is fit because the required values are achieved. Table 7 shows the threshold value of the study, and all required values fall within acceptable limit range.

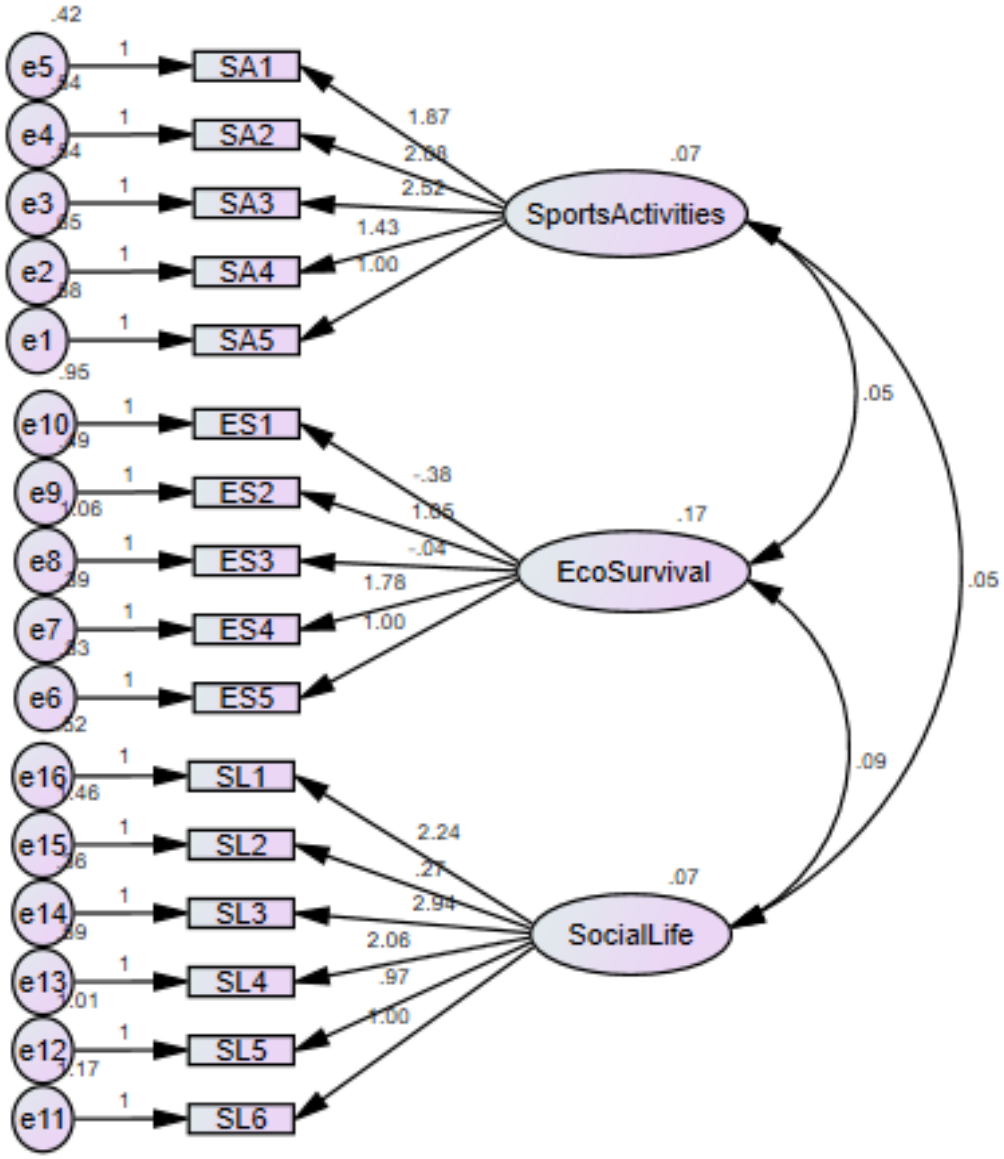

Figure 3. Confirmatory Factor Analysis (CFA)

Table 7

CFA Threshold Values

Statistics	Fit indices	Acceptable threshold value	Model
Absolute fit	x^2	As close as to zero	.000
	DF	As close as to zero	.054
	CMIN/DF	As low as 2 and as high as 5	3.453
	GFI	>.90	.943
	RMR	<.07	.043
	RMSEA	<.08	0.43
Incremental fit	NFI	>.90	.976
	TLI	>.90	.980
	CFI	>.90	.932
Parsimony fit	AGFI	>.90	.961

Table 8 shows the eigenvalues. Eigenvalue provides a set of scalars which are associated with the linear system of equations. The results had non-zero eigenvalues with acceptable diameters.

Table 8

Minimization History (Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	E	11		-.503	9999.0	1270.14	0	9990
1	E	5		-.883	1.132	905.876	20	.771
2	E	3		-.130	.639	745.426	5	.736
3	E	1		-.074	.656	629.853	4	.858
4	E	0	168.335		.893	537.522	6	.887
5	E	0	397.475		.748	489.043	2	.000
6	E	0	1888.655		.948	458.644	1	1.148
7	E	0	9758.308		.797	448.699	1	.991
8	E	0	14754.88		.571	446.533	2	.000
9	E	0	60924.60		.483	443.675	1	.950
10	E	0	47499.94		.254	443.393	2	.000
11	E	0	70740.97		.081	443.329	1	1.030
12	E	0	74281.13		.027	443.328	1	1.019
13	E	0	74633.62		.001	443.328	1	1.001

Table 9 and 10 show the regression and standardized regression weights. The results shows the direct impact of Sports Activities on its measuring items are significant. The analysis yielded significant results, and demonstrated the positive impact of SA on ES and SL.

Table 9

Regression Weights

			Estimate	S.E.	C.R.	P	Label
SA5	<---	SportsActivities	1.000				
SA4	<---	SportsActivities	1.306	.329	3.975	***	par_1
SA3	<---	SportsActivities	2.282	.490	4.659	***	par_2
SA2	<---	SportsActivities	1.888	.416	4.533	***	par_3
SA1	<---	Sports Activities	1.627	.362	4.494	***	par_4
ES5	<---	EcoSurvival	1.000				
ES4	<---	EcoSurvival	1.967	.364	5.397	***	par_5
ES3	<---	EcoSurvival	-.258	.194	-1.328	.004	par_6
ES2	<---	EcoSurvival	1.040	.221	4.716	***	par_7
ES1	<---	EcoSurvival	-.527	.197	-2.670	.008	par_8
SL6	<---	SocialLife	1.000				
SL5	<---	SocialLife	.520	.228	2.277	.003	par_9
SL4	<---	SocialLife	1.595	.450	3.548	***	par_10
SL3	<---	SocialLife	2.316	.629	3.679	***	par_11
SL2	<---	SocialLife	-.021	.268	-.080	.003	par_12
SL1	<---	SocialLife	1.846	.510	3.620	***	par_13

Table 10

Standardized Regression Weights

			Estimate
SA5	<---	**SportsActivities**	.359
SA4	<---	**SportsActivities**	.423
SA3	<---	**SportsActivities**	.666
SA2	<---	**SportsActivities**	.597
SA1	<---	**SportsActivities**	.579
ES5	<---	**EcoSurvival**	.391
ES4	<---	**EcoSurvival**	.804
ES3	<---	**EcoSurvival**	-.098
ES2	<---	**EcoSurvival**	.496
ES1	<---	**EcoSurvival**	-.207
SL6	<---	**SocialLife**	.287
SL5	<---	**SocialLife**	.161
SL4	<---	**SocialLife**	.538
SL3	<---	**SocialLife**	.748
SL2	<---	**SocialLife**	-.006
SL1	<---	**SocialLife**	.627

Table 11

Covariances

			Estimate	S.E.	C.R.	P	Label
SportsActivities	<-->	EcoSurvival	.056	.018	3.174	.002	par_14
SportsActivities	<-->	SocialLife	.064	.022	2.950	.003	par_15
EcoSurvival	<-->	SocialLife	.103	.033	3.115	.002	par_16
e16	<-->	EcoSurvival	-.065	.024	-2.703	.007	par_17
e14	<-->	e16	.134	.078	1.722	.085	par_18
e13	<-->	EcoSurvival	.052	.033	1.587	.113	par_19
e13	<-->	e15	.187	.058	3.206	.001	par_20
e12	<-->	Sports Activities	.072	.024	3.019	.003	par_21
e11	<-->	e15	.263	.078	3.387	***	par_22
e11	<-->	e14	-.164	.049	-3.341	***	par_23
e11	<-->	e12	.353	.070	5.065	***	par_24
e10	<-->	e15	.384	.077	4.974	***	par_25
e10	<-->	e11	.189	.063	2.986	.003	par_26
e8	<-->	e9	.203	.050	4.078	***	par_27

Table 11 shows the covariance of the study. The results were significant only the variable economic survival showed insignificant results with two items.

There were 5 items for measuring SA, 5 for ES, and 6 items for measuring SL. Table 12 showed that the variables SI, ES, and SL had acceptable and reliable measuring items. The P value of variables and measuring items were significant.

Table 12

Variances

	Estimate	S.E.	C.R.	P	Label
SportsActivities	.083	.033	2.524	.002	par_28
EcoSurvival	.152	.053	2.854	.004	par_29
SocialLife	.102	.051	2.000	.005	par_30
e1	.563	.053	10.588	***	par_31
e2	.652	.063	10.317	***	par_32
e3	.544	.068	8.005	***	par_33
e4	.538	.060	8.988	***	par_34
e5	.436	.048	9.177	***	par_35
e6	.845	.080	10.622	***	par_36
e7	.322	.065	4.988	***	par_37
e8	1.050	.094	11.127	***	par_38
e9	.504	.050	10.146	***	par_39
e10	.938	.085	11.020	***	par_40
e11	1.137	.104	10.886	***	par_41
e12	1.039	.093	11.149	***	par_42
e13	.636	.070	9.044	***	par_43
e14	.429	.099	4.341	***	par_44
e15	1.452	.130	11.210	***	par_45
e16	.537	.081	6.598	***	par_46

Table 13 shows the squared multiple correlation of the measuring items. The measuring items had positive estimates, and showed a range of dependency of variable outcome on each item.

Table 13

Squared Multiple Correlations

	Estimate
SL1	.393
SL2	.000
SL3	.560
SL4	.289
SL5	.026
SL6	.082
ES1	.043
ES2	.246
ES3	.010
ES4	.646
ES5	.153
SA1	.336
SA2	.356
SA3	.444
SA4	.179
SA5	.129

Conclusion

The active participation of women in sports activities makes for a significant contribution to the sports industry. This article discusses the impact of sports activities on sportswomen's economic survival and social life. The questionnaire was devised aroun the theme of time availability, knowledge limitations, family challenges and financial difficulties, and areas of activities which are understood to significantly impact the social life of sportswomen. The study indicates that the economic survival of sportswomen has become an essential topic for government and welfare organizations, and its importance has been highlighted in existing academic and empirical literature. Therefore, economic survival and sports activities can enhance an individual's sense of well-being, help maintain bone density, improve pulmonary function and uplift individual mood through active physical movement. It was found that economic survival is a significant part of sport's activities.

Recommendations

Based on the study findings, the following recommendations are put forth for future scholars and researchers;

- The current study lacked an explanation of Big Data Analysis in the methodology section; this should be adequately addressed in the future to ease readers' understanding.
- Sports activities are also possible in leisure time and can be divided into four categories of active physical participation: conditioning exercises, sports activities, home-based exercises, and recreational activities.
- The literature revealed that media Ccverage plays a significant role in encouraging and supporting active participation of females in sports.

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