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Research Article

Under Industry 4.0, the Current Status of Development and Trend Sports Industry Combining with Cloud Technology

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The goal is to explore the impact of motivation of participation, involvement, and satisfaction rate of sports App on physical and mental health and analyze the current status of development and trend of sports App. Six hundred and eighty valid questionnaires were analyzed using test statistic, descriptive statistics, and Pearson Product-Moment correlation followed by semistructured interviews to gather the views of the interviewees. Finally, information is integrated, using induction, organization, and analysis in order to explore in a multiple ways of examining. The result discovered that sports App has the characteristics of customization, being topical, having less interference, and able to increase professionalism, fortify skills, promote interaction, enhance confidence, improve mood, and reduce stress. There are also problems of low interactivity, low stimulation, attenuated fun, fatigue accumulation, and increased pressure. If the motivation, involvement, and degree of satisfaction of the participant can be satisfied, the mental feel will be enhanced.

1. Introduction

Exercise can fortify the body and increase personal health awareness and habit to achieve physical and mental health. A good exercise habit may change the cognition and judgment of a person [1–4], help attain good spirit [5] and increased self-immune system, and increase blood oxygen level [5, 6], improve activity [3, 7], and improve resistance to diseases while having adaptive power to concrete and invisible pressures, lowering the risk of death and maintaining a good physical and mental health [8, 9], for a sustained health. Even so, lack of activity is still the fourth top dangerous factor where over 2 million people die attributable to static lifestyle. 6% of death is related to lack of activity, only next to high blood pressure (13%), tobacco use (9%), and high blood sugar (6%) [10], which can increase the chance of getting diabetes, cardiovascular disease, and obesity and increase the risk of breast cancer, colon cancer, high blood pressure, osteoporosis, lipid metabolism disorder, depression, and anxiety [11]. The lack of exercise is an alarming crisis which people must not ignore.

With the fast changing economic, social, and political environment, urban development and construction result in reduction of sports and leisure space. In addition, pressure from work and school, change in life habits, consumption, and exercise force people to improve their mind and body through exercise. Each nation is attempting to improve the health of its citizens to lower the probability of death due to lack of activity and is proposing various recommendations, constructing sports centers, combining medical resources,

and further developing the sports industry. According to statistics, there are more than 28,000 health clubs, and the profit from related industries has reached 143 billion US dollars [12]. The growth rate of health clubs between 2013 and 2018 in Taiwan has reached 324% with a total revenue growth of 333% and estimated to reach over 100 billion New Taiwan dollars in the next 6 years [13]. It is obvious that health issue is not only the closest to the lives and health of the people but also a massive business opportunity.

Although the main goal of exercising is to improve health, the fact that the sports and exercise industry providing multiple classes and activities, and valuing service quality, and providing venues and equipment to people in a safe indoor environment that seems to be related to the lives and health of the people is actually business related. However, the actual operation of the sports and exercise industry and the model of providing sports merchandise are affected by the change in consumers' life habits [14] and are facing challenges due to the motivation to exercise, obstruction, and degree of involvement of the consumers [15, 16]. Therefore, under modern technology and pressure of work and life, searching for a new sports consumption model, understanding how consumers feel about an online exercise system, improving and enhancing the gap of related plans, continuing to provide comfortable, suitable, and safe exercise plans for humans, and looking for outlet for the sports and exercise industry and personnel will be important research topics.

With the rapid progress of science and technology and the changes in lifestyle, Internet technology getting involved with human life is an inevitable trend. It will become a major issue that human health and life quality will be greatly improved through cloud technology. Findings through a survey show that the present Internet technology getting involved with sports industry or behaviors to the sports participants can offer instant messages to supplement the participants or the helpers (family members or sports partners) to obtain the professional knowledge of sports skills and health improvement [17, 18]. In addition, it can also enhance the participants' sports involved intention. However it cannot completely change the participants' life quality and the mental feelings, but it can improve the users' physical health situation within limits [19]. As to the sports and health management organization or related business, it can help control the consumers' physical and mental health situation [20]. To the sports and health management organization or related business [17–20], it can help manage and control the consumers' physical and mental health situation to get hold of the latest public health information. In the meanwhile, it can feedback the users' professional information and, then, provide the users' satisfaction to enhance the willingness of participation. Therefore, as for the present situation of cloud technology getting involved with human sports behaviors, it can switch the consumers' indirect characters to watch the games over to get involved with the consumers' practical sports behaviors and learning to improve physical and mental health and satisfy the consumption trend of individual sports demand [14–24].

However, it is found through a survey that the recent topic of exploring cloud technology and sports behaviors mostly takes the participants' behaviors and intention [14, 17, 21], sports involved [18], consumption motivation [15, 16, 22], consumers involved [18], online [21], and life quality and physical and mental health [19] to explore. As for the organization or business, people explore public health and sports medicine as a single issue. Nevertheless, the present topic research situation is insufficient to combine sports motivation, involvement, satisfaction, and the influence of physical and mental health. To those who want to understand the situation that Internet technology gets involved with human leisure sports and health and look for the related technology and business development trend, this is a "must-be-improved" issue. These problems can be found through the users' feeling, and through this way, they can get the right and reliable answers. Thus, from the researcher's perspectives, they can use the sports participants' sports motivation, involvement, satisfaction, and the feeling of the influence between physical and mental health to explore the present situation and trend which cloud technology gets involved with sports industry development to get the correct answers and effective suggestions [15, 16, 22].

2. Theoretical Framework

2.1. Cloud Computing Online Sports Education and Training Software. The end of the 18th century started the industrial age. The ensuing beginning and middle of the 20th century replaced human labor with steam, electronics, and computers to alleviate the human workload and promote the development of technology. Entering into the 21st century, Internet, new energy, new material, and biotechnology form enormous industrial capability and market with great stride. Humans deploying the concept of machinery, operating machines commenced the fourth industrial revolution, Industry 4.0.

With the development of Internet, cloud technology, and artificial intelligence (AI), the use of smart cloud technology has intervened into the CPS model of the machine manufacturing process, robots. In the recent years, moreover, using AI as the base, through the process of sensors, human-machine interaction, decision making, execution, and feedback, the CPPS model of the product design, manufacturing process, management, and smart service is realized [17]. Using Industry 4.0 as the base, using cloud technology to change the traditional offline service industry model will be a trend.

Online exercise teaching system App starts with the concept of Industry 4.0 with AI as the foundation and has the sports management and design written in and searches for consumers with the need for exercise through Internet by using the current sports design protocol combining AI, computing the need of the user and the maximum limit the mind and body the person can endure to plan a personal exercise prescription to undergo safety monitoring and control. The purpose is to provide industry transformation and human exercise demand to improve the current state of sports and management industry for humans to better manage leisure and exercise more conveniently. It is a new type of sports industry management phenomenon and also a

new interactive model between humans and smart cloud technology.

The booming development of Internet facilitated the combining of cloud Internet with smart technology. With the sales of smart phones reaching 1.1 billion [25] globally, the intervening of cloud technology into the sports industry management and development because of the prevalence and dependence on smart phones by humans has become conspicuous. The industry and programmers have developed various phone applications, also known as APP, complying with the trend of combining AI and cloud technology. The sports and exercise Apps have been in existence for many years. The famous ones are Nike$^+$ Running, Keep, and YUNMAI. Currently, the sports Apps provide choices of planning for timing, step counting for jogging, health assessment, workout, yoga, extension, and local muscle training. They can also provide customized class designs according to different consumer mind and body demands to meet the various needs of the people doing exercise. This will not only increase reputation but also achieve the purpose of marketing and promotion [22].

Cloud technology intervening the sports industry belongs to the concept of using AI computation and borderless Internet technology. Setting exercise prescription or a management control system to assist the people to do various leisure exercises has become a trend behooving the current lifestyle and need of the people. Yet, product planning requires purchase by the consumers. So, exploring the views of the consumers in regard to the online exercise teaching system can improve the place where the current industry development is lacking. Moreover, the ultimate goal of people using the online sports App is to improve the personal health status to achieve the goal of physical and mental health. However, the early research topics of the current online sports App are mainly exploring the word of mouth marketing of the sports APP [23], public facility, and platform construction [25] which gradually turned to social and psychological areas exploration from the consumer's point of view. The direction is to predict sports consumers by understanding different motivation and behaviors from the business point of view [26]. There is also exploration of interest of learning and result [26], understanding the willingness to use the software by the consumers [27], motivation, and expectation [28]. However, there has been no finding of related topics on understanding the degree of involvement, motivation, degree of satisfaction, and physical and mental health of the consumers.

Therefore, the researchers believe that exploring the degree of involvement, motivation, degree of satisfaction, and impact on physical and mental health of using online sports App can truly understand if the merchandise meets the need of the people from the consumer's point of view, understand the perception and feel of using online sports App by the consumers, and further provide recommendations for future software design and development to online sports App providers and sellers.

2.2. Sports Participating Motivation. Product planning requires purchase by the consumers. So, exploring the views of the consumers can gain an understanding of whether the merchandise meets the need of the public. The theory of consumption satisfaction and demand is used to explain the feelings of consumers during the process of using the product [14, 27, 28]. Early research studies explored using media and audience motivation from newspapers, magazines, and TV programs [29]. Because Internet technology has matured, scholars have extended the theory of satisfaction into this realm [30], hoping to understand the need and choice of the public for Internet media from target orientation, from interior and exterior, socialization, entertainment, and status [31, 32]. Of course, there are sports psychologists who focus on mental motivation and believe that using consumer demand and behavior may also predict consumption motivation [15, 30, 33–35].

The use and consumption of Internet media have the characteristics of convenience, communication, stress relief, entertainment, group support, and technology learning [16], which have the consumption advantages [36] that enable the consumers to track the team or events the consumers like [37], enhance the technology knowledge on the team or events [37], share information with others [38], hide from everyday work [39], and gain a sense of belonging [40]. So, if the research wants to predict consumption motivation of the online sports teaching system, it can acquire the understanding through convenience of getting information, information sharing, result sharing, eluding of everyday chores, escape, entertainment, group support, and technology learning.

2.3. Involvement. The online sports teaching system provides the people to participate in consumption with sports classes. It is a new form of sports industry. The result will vary depending on the degree of involvement with the classes by he people. Involvement means the feeling for the action and cognition by the individual participating in the activity [41]. When exercising, preference will generate the state of excitement, passion, and focus without being easily distracted. Sports involvement will transfer to the subjective consciousness on the product depending on the degree of preference from commercials [42]. It will also produce a firm connection due to cognition, behavior, and feeling after the individual has participated in the activity [43].

Sports involvement is explored with subject and nature. The personal subjective feeling is added from how much the consumer values the product [42, 44]. In terms of the individual, it is the importance of the product by the user, the level of pleasure, and the centrality of the peripheral social interaction through which the pursuit of self-realization and that the user further identifies with and participates in the activity [45]. Sports involvement can be viewed from attraction, centrality, and self-performance [46–48]. Attraction is the pleasure, contentment, and feeling which the individual acquired after coming into contact with the product [47, 49]. Centrality is the high degree of involvement after interest in the thing has been generated. The degree of focus is different from that of other similar activities or merchandise [50, 51]. Self-performance is the

increase in self-confidence and change of value the self represents after believing that the change the activity has brought to the individual [45, 52]. So, sports involvement can be viewed from the physical and mental pleasure of attraction, level of involvement, invitation by friends, and personal preference. Centrality can be viewed from planning extra time for participation, topic of conversation, center of life, and participation by friends. Self-performance can be viewed from exploiting potential, self-understanding, confidence, and result sharing.

2.4. Satisfaction. Satisfaction is the feeling or viewpoint brought forth after a person has performed the leisure activity [53, 54]. When the leisure perception in participating in an activity reaches the individual's previous experience, expectation, or sense of accomplishment, it is exercise satisfaction [55, 56]. Satisfaction is a cognition difference comparing the feeling of experience between the expected result and actual result when the user purchases or uses the product [57]. Satisfaction is obviously the value derived from comparing the cost of giving and acquirement from feedback and assessment of the product benefit when the customer consumes again.

People's exercise satisfaction rate is the key to the product marketing and development of the online sports teaching system. There is a positive correlation between consumer satisfaction and marketing [58, 59]. Satisfaction can increase consumer loyalty [60, 61], and the higher the satisfaction, the higher the willingness to repeat the related exercise [62, 63]. It also affects the willingness to repeat using or consuming [64]. Online sports systems are varied. Understanding the consumer in terms of multiple demand and innovative service may be explored from product quality, service quality, and perceived value [59, 65] and understood from psychological, social, health, and fitness [61–63, 66]. Therefore, satisfaction can be explored from happy mood, increased self-confidence, increased passion, social interaction, increased sense of belonging, increase in social position, improved health, forming of exercising habit, reduced fatigue, satisfaction of curiosity, and knowledge expanding.

2.5. Physical and Mental Health. Physical and mental health means that a person may have good perception, maintain stable emotion, derive pleasure from working, and have the ability to create and self-motivate when facing reality [67, 68]. Individuals who have achieved the abovementioned physiological and psychological conditions are said to be physically and mentally healthy.

Normally speaking, being healthy means that there is no appearance of objective signals nor subjective disease or symptoms [69]. But, according to WHO's definition, being healthy should not be simply not having injury or symptom of disease. Being physically and mentally healthy should include satisfaction of personal physiological state, the degree of interference on life by body condition, temperamental behavior from worry and anxiety, feedback behavior not conducive to health, plus self-pleasure, good social relationship and ability, stable mood, joy in working, and the lack of any physiological, psychological, and social discomfort [67, 70].

Measuring physical and mental health adopted the General Health Questionnaire scale [71] in the earliest time. After editing, 28 questions are used, separately named as physiological state, anxiety and insomnia, social dysfunction, and severe depression [72]. Physiological state includes self-perceived status of health, ease of having headache, and feeling hot or cold. Anxiety and insomnia include panic for no reason, insomnia, and increase in work pressure. Social dysfunction includes low work efficiency, loss of passion for work, and inability to play the role of the job. Severe depression includes lack of luster in life, feeling useless, and thoughts of suicide. With evolution, in the recent years, Kessler psychological distress scale k10 is used to evaluate the physiological and psychological health of an individual and is the common evaluation tool now. It is suitable for all facets and levels [73, 74] and can determine from Nervous, Cannot calm down, Restless or fidgety, No sit still, Tired, Hopeless, Depressed, Everything an effort, Nothing cheer up, and Worthless [75]. Because the research explores from cloud technology, sports industry, and feeling of consumption by the public, both GHQ and K19 scales are used in understanding the impact on physical and mental health by the using behavior and feeling after the people have used the online sports teaching system; so, it is not just simply the physical and mental state during use that the researchers considered. It is viewed from psychological feeling, mental state, life attitude, and health and understood from self-confidence, panic, work performance, passion, sufficient time, headache, backache, insomnia, indigestion, abnormal diet, anxiety, irritability, sense of loss, and idea of suicide.

3. Research Related to Exercise Motivation, Involvement, Satisfaction, and Physical and Mental Health

Increase in motivation to exercise may facilitate personal attitude, maintain stable exercise habit, and obtain physical and mental health [71]. Motivation may affect physical and mental health positively and also satisfaction of life [72]. Motivation for leisure participation has a positive impact on physical and mental health and also indirect influence effect [73]. It is apparent that motivation to exercise and physical and mental health have an influence effect. However, it is discovered that research studies on motivation to exercise and physical and mental health topics mostly have subjects that are of old age or special sports and college students, very few on intervention by the cloud online sports teaching system. Thus, the researchers believe that it is worth exploring and the first objectives of the research.

Sports involvement can bring fun to the people and also stimulation or self-value identification from the product [74]. Sports can adjust and balance the stress in life and in work [75], and the degree of sports involvement and physical and mental health have an influence effect [76, 77]. However, explorations of physical and mental health from sports involvement have mostly subjects of industry employees,

nursing, and rehabilitation institution, very few on intervention by the cloud online sports teaching system. Thus, the researchers believe that it is worth exploring and the second objective of the research.

Exercise satisfaction can impel people's decision to repeat the experience after participating in an activity [77, 78]. Elevating satisfaction may facilitate the willingness in people exercise again. With repeated cycle, bodily health can be improved and work stress can be channeled [53, 54]. The higher the satisfaction, the higher the willingness for participating in sports and the better it is to reach the goal of improving physical and mental health through sports. However, research studies on satisfaction and physical and mental health have subjects of special cases, individual cases, and sport category, very few on intervention by the cloud online sports teaching system. Thus, the researchers believe that it is worth exploring and the third objective of the research.

In conclusion, human lifestyle and leisure modes have gradually changed with the development of technology and work. In response to the phenomenon, the sports industry developing with cloud technology has become a trend. However, understanding the need and experience of the consumers may supplement what is lacking in the current industry development. With the addition of self-assessment by the people on their own physical and mental health may further understand whether the online sports teaching system can achieve the goal of improving physical and mental health of the people. The current research topic still focuses on predicting consumer motivation and behavior [27] and product satisfaction [28]. There has been no exploration into the impact sports involvement, motivation, and satisfaction on the user's physical and mental health [79, 80]. Therefore, the research believes that using sports involvement, motivation, satisfaction, and impact on physical and mental health of online sports App may help understand the consumption motivation and exercise behavior of the people for the sports App and obtain whether the sports system is salubrious to the physical and mental health of the people while providing recommendations and planning for improvement to both the manufacturers and consumers.

4. Methods and Instruments

4.1. Study Framework and Hypotheses. Having read and analyzed the related research studies, we found that there are not too many research studies on the online cloud sports teaching system in terms of sports involvement, motivation, satisfaction, and physical and mental health [15–17, 24–74]; therefore, we have the online sports teaching system as the main topic and explore the impact sports involvement, motivation, and satisfaction of the people have on physical and mental health.

The architecture diagram of the study is as shown in Figure 1.

As illustrated in the study architecture, the objective of the research is as follows:

Hypothesis 1: the perception of the people's sports involvement is uniform. Hypothesis 2: the view of the people on exercise motivation is uniform. Hypothesis 3: the satisfaction of the people is uniform. Hypothesis 4: feeling of effect of physical and mental health in the people is uniform. Hypothesis 5: there is a significant correlation between sports involvement and physical and mental health. Hypothesis 6: there is a significant correlation between exercise motivation and physical and mental health. Hypothesis 7: there is a significant correlation between sports satisfaction and physical and mental health.

4.2. Study Scope and Limitations. The research subjects are the citizens of Fujian Province of China, and it explores the sports involvement, motivation, satisfaction, and impact on physical and mental health of the online sports App, using Internet questionnaire platform to perform the survey from March 1, 2020, to April 30, 2020. Although there are 39.11 million people in Fujian Province [81], considering factors of health environment and safety during the survey period, those who could not be on site to confirm and answer, plus the actual participation and experience of the interviewees and their willingness to answer questions, 680 valid questionnaires have enough representation [82] for analysis. At first, the research tool needs the scholars who have the background of sports, health management, and sports science and the traders of sports bracelets and the users to help correct the questionnaire issue and set up the reliability. Then, the SPSS for Windows 22.0 statistical software is used to verify the research tool with exploratory factor analysis. While there is enough ability to verify, the researcher will turn the disorganized variables into the new hypothesis and facets after induction and assortment. Finally, the construction validity will be verified to increase the accuracy of the issue through Cloninger's biopsychosocial model [83]. Then, the researcher can determine the influence between independent variables and dependent variables with statistical tests. To adapt the Pearson product-moment correlation coefficient, there will be an answer to the relationship of the two variables [84, 85]. If there are defects in the process or results of this research due to the limitations of time, funds, sample, and sample background, as well as the design of the research method, this will become a future research proposal, and improvement methods will be proposed at the end of the article.

4.2.1. Demographics. Population statistical variants include gender: male, female; options: dance, physical fitness, leisure; usage experience: seldom and frequent; software choices: iOS/Android, Keep, YUNMAI (7 minutes), free personal fitness coach (ABISHKKING LIMITED), sports fitness program (Daily Workout Apps, LLC), Runkeeper, Endomondo' Marathon world (Let's Run), NIKE + running, Runtastic Running and Fitness, mySports, zombies Run, MapMyRun, Strava, and RockMyRun; environment: space at home, park, school, sports center, gym, peripheral environment, community sports center, and others; exercise

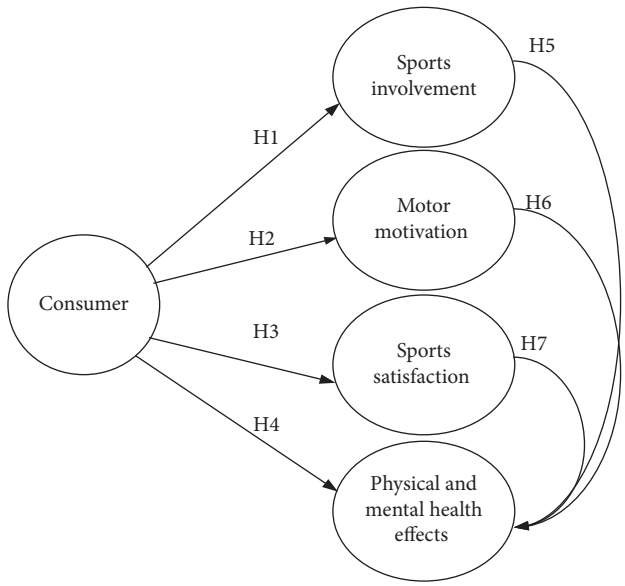

Figure 1: Research architecture diagram.

time: less than 30 minutes, one hour, and over an hour; and frequency: once a day, once a week, and once a month.

4.2.2. Compilation and Analysis of Questionnaires on Sports Involvement, Motivation, Satisfaction, and Physical and Mental Health. The research mainly explores the sports involvement and motivation of the online sports teaching system on physical and mental health. Twelve questions on exercise motivation are produced considering literatures on sport motivation [14–40], sports involvement [41–52], sports satisfaction [53–66], and physical and mental health [66–74], in which 9 questions on involvement, 12 questions on satisfaction, and 13 questions on physical and mental health made up for a total of 46 questions.

After compilation, content validity is examined. After examining, 50 more questionnaires are collected and analyzed with SPSS for Windows 22.0 statistical software. When KMO > 0.08 and from the p value of Bartlett's test, it means that the scale is suitable to continue to perform factor analysis [81]. With the α coefficient of over 0.80, it means that the questionnaire has good reliability [86]. The results of every variable analyzed are as follows. The detailed information is shown in Table 1.

There are a total of 12 questions on motivation [15, 16, 26–39]. The result after analysis is that the KMO is 0.942 and the $\chi 2$ value of Bartlett is 2101.667 with a df of 66 and significance of $p < 0.001$, suitable for factor analysis. The explained variations of the scale are 66.83%, 4.933%, and 2.753%, and the total explained variation is 74.517%, all of which are kept after factor analysis and are separately named as psychology (3), social interaction (3), physical fitness (3), and intellectuality (3) for a total of 12 questions. The α coefficients of the four scales are 0.953, 0.956, 0.956, and 0.956 individually and 0.959 for the total scale. Based on the result of the abovementioned analysis, the questionnaire has good reliability.

There is a total of 9 questions for the sports involvement [41–52]. The KMO is 0.927, and the χ^2 value of Bartlett is 1513.964 with a df of 36 and significance of $p < 0.001$, suitable for factor analysis. The explained variations of the scale are 68.224%, 6.478%, and 2.373%, and the total explained variation is 77.074%, all of which are kept after factor analysis and are separately named as attraction (3), centrality (3), and self-expression (3) for a total of 9 questions. The α coefficients of the four scales are 0.908, 0.836, and 0.886 individually and 0.915 for the total scale. Based on the result of the abovementioned analysis, the questionnaire has good reliability.

There are a total of 9 questions for satisfaction [53–66]. The KMO is 0.942, and the χ^2 value of Bartlett is 2251.537 with a df of 66 and significance of $p < 0.001$, suitable for factor analysis. The explained variations of the scale are 69.175%, 5.304%, and 1.806%, and the total explained variation is 76.285%, all of which are kept after factor analysis and are separately named as psychology (3), social interaction (3), physical fitness (3), and intellectuality (3) for a total of 12 questions. The α coefficients of the four scales are 0.919, 0.944, 0.925, and 0.926 individually and 0.946 for the total scale. Based on the result of the abovementioned analysis, the questionnaire has good reliability.

There is a total of 13 questions for physical and mental health [66–74]. The KMO is 0.907, and the χ^2 value of Bartlett is 2285.424 with a df of 78 and significance of $p < 0.001$, suitable for factor analysis. The explained variations of the scale are 44.364%, 28.252%, and 3.178%, and the total explained variation is 75.794%, all of which are kept after factor analysis and are separately named as psychological feeling (5), mental state (3), and life attitude and health (5) for a total of 13 questions. The α coefficients of the four scales are0.917, 0.909, 0.905, and 0.919 individually and 0.920 for the total scale. Based on the result of the abovementioned analysis, the questionnaire has good reliability.

4.2.3. Analysis Method and Discussion. The research discovered that the online sports App teaching system rarely explores sports involvement [76, 77], motivation [71, 72], satisfaction [52, 53], and even more lacking in combining each topic with physical and mental health [9, 70, 79, 87]. Therefore, the research thinks that combining qualitative and quantitative methods plus triangulation will fortify the literature structure [88–90]. Combining literature analysis, statistical verification, interviews, and constructing peer examination mechanism, information is interpreted and explored with multiple viewpoints [88]. First, statistical verification is implemented using SPSS for Windows 22.0. Sample information is analyzed using Pearson correlation and combining individual interviews with expert scholars, the people, and industry (as in Table 2) after acquiring their authorization. The opinions on the statistical results are published for ensuing deduction and final compilation of multiple information [89] to undergo cross reference and examination [80], use and induce, organize, analyze in order, and finally, achieve correct and reasonable information to construct the paper [90] and explore. The background of the interviewee and topics are explained in Table 2.

Table 1: Analysis of participation motivation, participation, and satisfaction dimensions of sports applications for physical and mental health.

Issue			M	SD	σ
Exercise motivation ($\sigma = 0.959$)	Psychology ($\sigma = 0.953$)	(1) Relax and get happiness and satisfaction	3.51	0.934	0.953
		(2) Increase self-confidence	3.49	0.837	0.953
		(3) Stimulate life fun	3.37	0.883	0.954
	Interpersonal interaction ($\sigma = 0.956$)	(4) Meet friends and increase opportunities for interaction with others	3.36	0.928	0.955
		(5) Have a sense of belonging in professional sports image	3.35	0.972	0.956
		(6) Gain the respect of others	3.28	0.931	0.955
	Health and fitness ($\sigma = 0.956$)	(7) Improve physical health	3.96	0.861	0.956
		(8) Develop exercise habits	3.76	0.849	0.955
		(9) Eliminate work and study fatigue	3.54	0.892	0.954
	Intellect ($\sigma = 0.956$)	(10) Explore new things and satisfy curiosity	3.46	0.904	0.954
		(11) Expand sports knowledge	3.76	0.860	0.956
		(12) Experience the atmosphere of home sports	3.62	0.879	0.956
Sports involvement ($\sigma = 0.915$)	Attractiveness ($\sigma = 0.908$)	(1) Make me happy	3.21	0.793	0.903
		(2) Very attractive to me	3.20	0.793	0.908
		(3) I will invite family and friends to join together	3.14	0.873	0.905
	Centrality ($\sigma = 0.836$)	(4) One of the focuses of life, willing to sacrifice other leisure time	3.01	0.931	0.830
		(5) I like to discuss the use experience with my friends	3.11	0.873	0.835
		(6) I have many friends who use	3.14	0.869	0.830
	Self-expression ($\sigma = 0.886$)	(7) Use system exercise to show your ability	3.15	0.769	0.882
		(8) I can talk about the user experience	3.10	0.856	0.875
		(9) I am happy to share the use process publicly	3.05	0.921	0.854
Experience satisfaction ($\sigma = 0.946$)	Psychology ($\sigma = 0.919$)	(1) Can relax me and be happy and satisfied	3.45	0.762	0.917
		(2) Can increase my confidence	3.43	0.788	0.912
		(3) Can make me feel excited	3.35	0.784	0.918
	Social interaction ($\sigma = 0.944$)	(4) Can make me know friends and increase the chance of interacting with others	3.29	0.809	0.926
		(5) It gives me a sense of belonging to a professional sports image	3.32	0.830	0.936
		(6) Can make me respect from others	3.25	0.857	0.931
	Health and fitness ($\sigma = 0.925$)	(7) Can improve my health	3.70	0.851	0.931
		(8) Can make me develop exercise habits	3.57	0.801	0.919
		(9) Can make me eliminate work and study fatigue	3.45	0.842	0.919
	Intellect ($\sigma = 0.926$)	(10) Can relax me and be happy and satisfied	3.46	0.790	0.918
		(11) Can increase my confidence	3.64	0.792	0.919
		(12) Can make me feel excited	3.57	0.781	0.919
Physical and mental health ($\sigma = 0.920$)	Psychology ($\sigma = 0.917$)	(1) Can relax me and be happy and satisfied	3.45	0.762	0.917
		(2) Can increase my confidence	3.43	0.788	0.917
		(3) Can make me feel excited	3.35	0.784	0.915
	Social interaction ($\sigma = 0.909$)	(4) Can make me know friends and increase the chance of interacting with others	3.29	0.809	0.916
		(5) It gives me a sense of belonging to a professional sports image	3.32	0.830	0.906
		(6) Can make me get respect from others	3.25	0.857	0.907
	Health and fitness ($\sigma = 0.905$)	(7) Can improve my health	3.70	0.851	0.903
		(8) Can make me develop exercise habits	3.57	0.801	0.904
		(9) Can make me eliminate work and study fatigue	3.45	0.842	0.901
	Intellect ($\sigma = 0.919$)	(10) Can make me relaxed, happy, and satisfied	3.46	0.790	0.918
		(11) Can increase my confidence	3.64	0.792	0.919
		(12) Can make me feel excited	3.57	0.781	0.918

5. Research Results and Analysis

5.1. Background Information Analysis. From analyzing the background of 680 samples, there are 152 males (23.4%) and 498 females (76.6%). For the software, 98 people chose ball sports (15%), 377 chose dance (58%), 111 chose fitness 人 (17%), and 65 chose leisure (10%). Five hundred and fifty-three people use software once in a while (85%), and 98 use frequently (15%). Five hundred and forty-seven people use iOS/Android (84.2%), 13 use Keep (2%), 7 use NIKE + running (1%), and 83 use RockMyRun (12.8%). Three hundred and eighty-three people in their own home

Table 2: Interviewee background and interview topics.

Background note	Scholar	Industry	Industry	People	People
Background	Professor	Fitness coach	Sports center	Student	Civil servant
Field	Leisure sports management	Work out	Industrial management and sports teaching	Tourism	Administrative
Fitness experience	20 years	20 years	35 years	6 years	22 years
Use of sports APP experience	6 years	2 years	2 years	5 years	8 years
Kind of sport	Comprehensive fitness	The core muscles	The core muscles	Bicycle	Jogging
Current status	Occasionally	Occasionally	Occasionally	Often	Often

Interview outline
(1) What motivates the online sports guidance system to attract consumers? What are the reasons why consumers cannot accept it? Please explain why
(2) After using the system, what is the most satisfying place? What is the dissatisfying place? Please explain why
(3) What are the factors that attract consumers to continue to use the online sports guidance system? Also, what are the reasons due ti which consumers refuse to use? Please explain the reasons
(4) What is the biggest change in personal physical and mental health after use? What is the smallest change? Please explain why
(5) What are the factors that have the biggest impact on the physical and mental health after using the online sports guidance system? Please explain why

space (58.96%), 71 exercise in parks (10.98%), 49 exercise in schools (7.51%), 15 exercise in sports centers (2.31%), 19 exercise in gyms (2.89%), 79 exercise in the surrounding environment (12.14%), 23 exercise in community sports centers (3.47%), and 11 exercise in other places (1.74%). Ninety people exercise for less than 30 minutes (67.07%), 154 exercise for 1 hour (23.78%), and 59 exercise for over an hour (9.15%). One hundred and forty-six people for exercise once a day (22.5%), 353 plan for once a week (54.38%), and 150 plan for once a month (23.13%). In conclusion, the females value appearance very much. Yet, those interviewees who use App sports software can only plan to do easy sports such as dancing 30 minutes every week because they are under great pressure of work or homework and insufficient time limit.

5.2. Industry 4.0, Smart Cloud System—Analysis of Motivation for Using Sports App, Involvement, Satisfaction, and Physical and Mental Health

5.2.1. Cognitive Analysis of Exercise Motivation. Exercise motivation can predict people's demand and choice for products [15, 30, 35]. Therefore, the research hypothesis 1 is that people have the same motivation for using sports app. The analysis results are shown in Table 3. Findings: there is a greatest impact of sports App on health and fitness (62%), and there are the effects of promoting health (74%), expanding knowledge (65.5%), increasing self-confidence (46.3%), and having professional image (42%). However, the result of social interaction is not good (38%), no help in gaining respect (35.1%), stimulating fun in life (38.9%), reducing work fatigue (48.9%), and satisfying curiosity (46.8%).

The interviewees think that the sports App can customize planning to meet the exercise needs of different physiological and mental condition of the subject without outside interference during the process of exercise in which professional knowledge and skills can be understood, and thus, that there is an effect of promoting health, expanding knowledge, and increasing self-confidence and professional image. In addition, there is the benefit of improving health and fitness. However, during the exercise, it is more of an individual exercise and hard to interact with others. In order to achieve the result, classes are mostly in a cyclic format, frequent but monotonous. The time for participation is outside the work hours. Fatigue can easily set in during the exercise growth period. Thus, overall, the result of social interaction is minimal and not helpful with gaining respect, stimulating fun in life, reducing work exhaustion, and satisfying curiosity.

To sum up, sports App has the advantages of customization, no outside interference, and increasing professional knowledge and skill to attract the participants to use. However, it is the factor of customization that there will not be any sharing with others during the process. Class design connects with the result of exercise and repeats too frequently. Class time is too long, and the content is too monotonous and requires extra time, all of which are not advantageous in reducing work exhaustion, stimulating fun in life, satisfying curiosity, gaining respect, and enhancing motivation to use the software in the participants.

The recommendation is to design short class time, enrich user experience, and plan for a social platform to increase interaction with others which will help improve the problem and increase motivation for using.

5.2.2. Cognitive Analysis of Sports Involvement. Engaging in sports can bring fun to people, and the degree of involvement can also change the stimulus or self-worth of products [74]. Therefore, for hypothesis 2, the people involved in sports app have the same feelings about sports involvement, and the result of analysis is illustrated in Table 4. The findings: sports App planning is attractive (28%); will invite friends and family to participate (28.7%); many friends around are users (29.3%); and happy to share experience

Table 3: Cognitive analysis of exercise motivation in sports apps.

Issue		M	SD	%
Psychology (43%)	(1) Relax and get happiness and satisfaction	3.51	0.934	46.30
	(2) Increase self-confidence	3.49	0.837	46.30
	(3) Stimulate life fun	3.37	0.883	37.20
Interpersonal interaction (38%)	(4) Meet friends and increase opportunities for interaction with others	3.36	0.928	38.90
	(5) Have a sense of belonging in professional sports image	3.35	0.972	42.00
	(6) Gain the respect of others	3.28	0.931	35.10
Health and fitness (63%)	(7) Improve physical health	3.96	0.861	74.00
	(8) Develop exercise habits	3.76	0.849	64.90
	(9) Eliminate work and study fatigue	3.54	0.892	48.90
Intellect (56%)	(10) Explore new things and satisfy curiosity	3.46	0.904	46.80
	(11) Expand sports knowledge	3.76	0.860	65.50
	(12) Experience the atmosphere of home sports	3.62	0.879	55.30

(25%). But, self-expression (24.3%) is the lowest and no result of exhibiting self-ability (23%); personal attraction (27.7%) and interest (27.7%); and willingness to sacrifice leisure time (25%).

The interviewees think that with the multiple sports App classes, there is good result of personal experience. In addition, it is easy to engage in conversation with friends around who are also users. In a long period of time, there is willingness to invite friends and family to participate and to share experience. It is very attractive. However, the sports App classes are done individually. It is harder to increase social interaction and the attention of others. It is impossible to show one's own ability and hard to increase pleasure. Also, if extra time is required to schedule the exercise, the willingness drops; therefore, they think that it is impossible to share publicly, show their own ability, and increase personal attraction and interest and are unwilling to intrude into other leisure time.

To sum up, sports App classes are divers, and the result of user's individual experience can be seen. In addition, there are increase in population of users, being conversational topic, conducive to enhance social interaction, and willingness to share experience and recommend to friends and family. However, because of personalized design, it is hard to share classes with others, impossible to share result immediately, and increase the opportunity of social interaction. In the long run, there is no willingness to spend time on using the software to exercise, thus reduced sports involvement willingness.

The recommendation is to plan a real time sharing and interacting platform to increase the opportunity to interact and share with peers, increase the opportunity for attention, and to enhance the willingness to use.

5.2.3. Cognitive Analysis of Sports Satisfaction. Satisfaction with sports experience can influence people's evaluation of re-experience after participation [78, 79]. Therefore, for the research hypothesis 3, the people's satisfaction with the sports app experience is consistent, and the result of the analysis is illustrated in Table 5. Findings: sports App can noticeably improve health and fitness (52%); improve bodily health (59.6%); expand sports knowledge (54.2%); enhance professional sports image (37.7%); and help acquire relaxation and pleasure (43.1%). However, it is not good in social interaction (34%); not effective in reducing fatigue (43.1%); increasing social interaction (32.5%); gaining respect (32.5%); stimulus in life (36.2%), and satisfying curiosity (44.6%).

The interviewees think that following the sports App course design and plan will let them learn professional sports knowledge, improve health and fitness, have a sense of accomplishment after completing, obtain physical and mental relaxation, and be filled with self-confidence. However, the classes are customized, so there is less chance for interaction with others. The design is for improving personal health conditions with increasing fortitude which renders muscle fatigue. After a long period of participation, mental exhaustion is great and it is easy to generate bad feelings. Therefore, they think that it is not helpful in terms of reducing fatigue, increasing interaction with others and obtaining respect, while stimulating life, satisfying curiosity, and low social interactivity.

To sum up, sports App can let the participants gain professional sports knowledge, improve health and fitness, acquire physical and mental relaxation, and be filled with self-confidence. However, because of customization, there is less opportunity for interaction with others, and it requires appropriating extra time after work to exercise and after which the fatigue generated is hard to recede, but rather, stress is increased and bad feelings produced, thus reduced satisfaction.

The recommendation is to plan for an open or live cast sharing platform combining with other software and classes of relaxation after exercising and body fostering and provide software to users to increase the opportunity to increase interaction with family members and satisfy the need of the users to increase satisfaction.

5.2.4. Analysis of the Impact of Physical and Mental Health. Physical and mental health means that a person may have a good perception, maintain stable mood, have joy in work, and have creativity and self-initiative when facing reality [67, 68]. Sports can enhance fitness, increase personal health awareness, and change the health habit to achieve physical

Table 4: Cognitive analysis of sports involvement in sports apps.

Issue		*M*	SD	%
Attractiveness (28%)	(1) Make me happy	3.21	0.793	27.70
	(2) Very attractive to me	3.20	0.793	27.70
	(3) I will invite family and friends to join together	3.14	0.873	28.70
Centrality (27.5%)	(4) One of the focuses of life, willing to sacrifice other leisure time	3.01	0.931	25.00
	(5) I like to discuss the use experience with my friends	3.11	0.873	29.30
	(6) I have many friends who use	3.14	0.869	28.20
Self-expression (24.3%)	(7) Use system exercise to show your ability	3.15	0.769	23.50
	(8) I can talk about the user experience	3.10	0.856	25.00
	(9) I am happy to share the use process publicly	3.05	0.921	24.50

Table 5: Cognitive analysis of experience satisfaction of sports App.

Issue		*M*	SD	%
Psychology (40%)	(1) Can make me relaxed, happy, and satisfied	3.45	0.762	43.10
	(2) Can increase my confidence	3.43	0.788	41.40
	(3) Can make me feel excited	3.35	0.784	36.20
Social interaction (34%)	(4) Can make me know friends and increase the chance of interacting with others	3.29	0.809	32.50
	(5) It gives me a sense of belonging to a professional sports image	3.32	0.830	37.70
	(6) Can make me get respect from others	3.25	0.857	32.50
Health and fitness (52%)	(7) Can improve my health	3.70	0.851	59.60
	(8) Can make me develop exercise habits	3.57	0.801	52.20
	(9) Can make me eliminate work and study fatigue	3.45	0.842	43.10
Intellect (50%)	(10) Can make me relaxed, happy, and satisfied	3.46	0.790	44.60
	(11) Can increase my confidence	3.64	0.792	54.20
	(12) Can make me feel excited	3.57	0.781	50.50

and mental health [1–9]. Therefore, understanding whether there is an impact on physical and mental health after using is the fourth objective of the research. The result of the analysis is illustrated in Table 6. Findings: people think that using smart Internet sports App has a greater change psychologically (24.6%); can improve insomnia (15.4%); stabilize mood (10.6%); and increase self-confidence (49.5%). However, the impact on life attitude and health is minimal (7.34%); not beneficial to enhance work performance (38.3%); improve life and dietary habits (15.5%); and there is a problem of backache (33%).

The interviewees think that the sports App can improve a person's spirit after using and relinquish unhappy mood while improving the body and self-confidence. However, in the process, the sports class design is monotonous and the workload gradually increases to a point of being unbearable. In addition, in the process, they have to tend to work and exercise resulting in lack of time and increased stress.

To sum up, sports App can elevate the spirit of a user, improve mood and health, and further boosts confidence. However, the extra time appropriated to exercise cuts into time for rest. Moreover, that the content is monotonous and the workload gradually increases actually increased stress for the user. Exercise fatigue is hard to recover and not helpful in improving physical and mental health.

The recommendation is to improve the software and class design, add pictures of nature and music, enrich the user experience, adapt to time, and relaxation class in order to improve the result for physical and mental health.

5.3. Smart Internet: Correlation Analysis of Sports App's Impact on Physical and Mental Health by Exercise Motivation, Involvement, and Satisfaction

5.3.1. Correlation Analysis of Motivation and Physical and Mental Health. Exercise motivation can positively affect physical and mental health and can also affect life satisfaction [72]. In addition, leisure participation motivation and physical and mental health have a positive impact and have an indirect relationship [73]. Therefore, for hypothesis 5, there is a correlation between people's motivation to use sports apps and their cognitive effects on physical and mental health, and the result of the analysis is illustrated in Table 7. Findings: psychological feeling of physical and mental health with psychology of exercise motivation (0.735), society (0.669), health and fitness (0.731), intellectuality (0.702), mental condition (0.237), life attitude (0.218), and society; all are significant ($p < 0.01$). There is a high degree of correlation between psychology, society, and health and fitness and intellectuality of which there is a greatest effect between psychological feeling and psychology.

Deduction: exercising requires long-term participation in order for the result to show. It requires determination and endurance and can deplete energy. It is helpful in alleviating stress and improving health. After physical and mental health is improved, psychological stress can be released and work efficiency can be increased, result of social interaction can be promoted, and self-confidence can be enhanced.

Table 6: Cognitive analysis of the effect of using sports app on physical and mental health.

Issue		M	SD	%
Psychological feelings (24.6%)	(1) Make me feel good and increase my confidence in facing things around me	3.49	0.831	49.50
	(2) It makes me feel scared and scared	3.33	0.826	39.30
	(3) Satisfied with my work performance	3.34	0.820	38.30
	(4) Let me be passionate about things or activities	3.40	0.798	40.30
	(5) Make me feel that I can use my time to do things	3.43	0.795	44.20
Mental status (21.9%)	(6) Makes me feel headache or pressure on the head	2.84	0.857	17.50
	(7) It makes me feel backache	3.18	0.863	33.00
	(8) Make me sleepless or sleep well	2.67	0.958	15.40
Life attitude and health (7.34%)	(9) It makes me feel stomachache and indigestion	2.57	0.936	11.70
	(10) Let me have an abnormal diet (eat more, drink more, or smoke more)	2.64	0.923	15.50
	(11) Makes me impatient and easy to lose my temper	2.52	0.928	10.60
	(12) I still feel that work and life are meaningless and I feel very lost	2.48	0.994	13.30
	(13) I still feel that death can escape everything	2.32	1.117	12.80

Therefore, the higher the psychology, society, health and fitness, and intellectuality of exercise motivation, the more conspicuous the change of mental condition.

The recommendation is that if the industry can satisfy the need of the participant's psychology, society, health and fitness and if the participant can correct personal psychology, society, health and fitness result target, the mental condition of physical and mental health can be improved.

5.3.2. Correlation Analysis of Involvement and Physical and Mental Health. Exercise adjustment and balance of the stress of life and work [76] and the degree of sports involvement have a relevant impact on physical and mental health [76, 77]. Therefore, for hypothesis 6, there is a correlation between people's involvement in sports using sports apps and their perception of physical and mental health effects, and the result of analysis is illustrated in Table 8. Findings: there is significant impact ($p < 0.01$) on centrality of physical and mental health and sports involvement (0.754), self-expression (0.619), attraction (0.602), mental condition and centrality (0.26), self-expression (0.286), life attitude and health and centrality (0.218), and self-expression (0.287), in which there is a medium correlation between psychological feeling and attraction, centrality, and self-expression and a greatest impact between psychological feeling and attraction.

(1) Deduction. It takes a long time for the result of exercise to appear. There is not enough perseverance to see the result. If there is an increase in personal exposure, increase in self-confidence to facilitate the participant's own initiative to plan for exercise time, and increase in willingness to exercise, the result can be fortified to expediate the goal of improving physical and mental health. Hence, the better the result of attraction, centrality, and self-expression of sports involvement, the more prominent the improvement of mental condition of physical and mental health.

(2) Recommendation. If the industry can make perfect the need of participant's attraction, centrality, self-expression and if the participants can lower the threshold and adjust the target for the result for personal attraction, centrality, and self-expression, the result of mental condition of physical and mental health will be significantly improved.

5.3.3. Correlation Analysis of Satisfaction and Physical and Mental Health. Satisfaction can sway the willingness in people to exercise again. The higher the satisfaction is, the bigger will the quality and quantity of the exercise be, and the greater is the result of health improvement [53, 54]. Therefore, for hypothesis 7, there is a correlation between the sports satisfaction of people using sports apps and the cognitive effects of physical and mental health, and the result of analysis is illustrated in Table 9. Findings: there is a significant impact ($p < 0.01$) between psychological feeling of physical and mental health and sports satisfaction (0.828), society (0.752), health and fitness (0.778), intellectuality (0.809), and mental condition to society (0.216), and intellectuality (0.199), in which psychological feeling and psychology, society, health and fitness, and intellectuality are highly correlated with the greatest impact on psychological feeling and psychology. The result is not the same as that of hypothesis 7.

Deduction: exercise requires personal determination and endurance, society support, and result of improved physical and mental health plus incentive for learning new knowledge in order to make the participant continue exercising and obtain the result of improved physical and mental health. Therefore, if real changing experience of satisfaction in terms of the participant psychology, social interaction, health and fitness, and intellectuality can be obtained, it will be conducive to improving the psychological feeling of physical and mental health.

Recommendation: if the industry can meet the expectation of the participant's psychology, social interaction, health and fitness, and intellectuality, while the participant can transfer the focus of the experience of the process, lower the goal and expectation of psychology, social interaction, health and fitness, and intellectuality, it will be conducive to improving the psychological feeling of physical and mental health.

Table 7: Correlation analysis of exercise motivation and cognition of physical and mental health effects.

		Motivation				Physical and mental health effects		
		Psychological	Society	Health and fitness	Intellectual	Psychological feeling	Mental condition	Life attitude and health
Motivation	Psychological	1						
	Society	0.824**	1					
	Health and fitness	0.815**	0.734**	1				
	Intellectual	0.802**	0.723**	0.825**	1			
Physical and mental health effects	Psychological feeling	0.735**	0.669**	0.731**	0.702**	1		
	Mental condition	0.126	0.237**	0.146	0.088	0.210**	1	
	Life attitude and health	0.127	0.218**	0.103	0.077	0.102	0.762**	1

** $p < 0.001$.

Table 8: Correlation analysis of sports app's sports involvement and physical and mental health cognition.

		Sports involvement			Physical and mental health effects		
		Attractive	Centrality	Self-expression	Psychological feeling	Mental condition	Life attitude and health
Sports involvement	Attractive	1					
	Centrality	0.795**	1				
	Self-expression	0.718**	0.832**	1			
Physical and mental health effects	Psychological feeling	0.754**	0.619**	0.602**	1		
	Mental condition	0.150	0.260**	0.286**	0.210**	1	
	Life attitude and health	0.113	0.218**	0.287**	0.102	0.762**	1

** $p < 0.001$.

Table 9: Correlation analysis of sports App's sports satisfaction and cognition of the influence of physical and mental health.

		Satisfaction				Physical and mental health effects		
		Psychological	Society	Health and fitness	Intellectual	Psychological feeling	Mental condition	Life attitude and health
Satisfaction	Psychological	1						
	Society	0.839**	1					
	Health and fitness	0.835**	0.750**	1				
	Intellectual	0.832**	0.746**	0.879**	1			
Physical and mental health effects	Psychological feeling	0.828**	0.752**	0.778**	0.809**	1		
	Mental condition	0.157	0.216**	0.120	0.199**	0.210**	1	
	Life attitude and health	0.058	0.167	0.060	0.062	0.102	0.762**	1

**$P < 0.001$.

6. Conclusions and Recommendations

6.1. Conclusions. Studying the users' participation motivation, involvement, and satisfaction toward the feeling of improving the physical and mental health effect, it is indicated from the survey that the sports App software combined with the cloud technology is personalized and customized, highly effective, and there is much topicality. Furthermore it will not be interfered with the external force, and it can promote sports professional knowledge and skills to help interpersonal interaction. In addition, it will improve moods and the traits of health to enhance the participants' motivation, involvement, and satisfaction willingness. It will improve the actual feeling of psychological level in both physical and mental health. It will gain favor of people. On the other hand, the customized courses will decrease the opportunity for interpersonal interaction, so it will not satisfy to stimulate life fun and curiosity. It needs to take extra leisure hours, and it will increase the pressure. Thus, the sports fatigue is difficult to recover. Then, the potential

sports impediment will be produced. At last, it cannot promote the physical and mental health, and it will probably bring out rejection phenomenon.

The participants must have very high perseverance and endurance because it takes a very long time to see the sports effects. If the customized courses design will be increased and the opportunity of interpersonal interaction will be enhanced, the participants will promote the sports motivation, involvement, and satisfaction willingness, and the psychological level will actually be changed with the combination of music or video to increase the sports fun and offering the measures and suggestions of recovery.

6.2. Recommendations. According to the abovementioned analysis and discussion results, the relevant suggestions are as follows:

(1) Build an interactive platform for sports classification communities to shorten the exercise time

Sports Apps are mostly designed for customization and, thus, hard to promote interaction between the user and other. Moreover, for achieving result of exercise, the time required and content of exercise will be different. Without determination and perseverance, the result is hard to appear. Therefore, if an interactive platform for sports classification according to the intensity of the exercise can be built while planning for even shorter exercise time, increased exposure, and speedy result, it will be conducive to enhancing motivation.

(2) Design interface options to share the current status and effectiveness of personal sports in real time

Current software design provides limited sharing but without real time interaction between users. If there is a design to share the current status and effectiveness of personal sports in real time in the social platform of the software, it will increase the attention and encouragement given to the participant.

(3) Matching music or landscape to increase willingness to participate

Either leisure or exercise requires long-term devotion if the result is to be seen. The process takes time and is dull. If matching music or landscape in the sports software can be added to distract the weariness of the user due to long exercise time, it will be conducive to increase willingness in the participant.

(4) Take the case study as a case to discuss the current status of different software experiences

There are many sports app users. There are also many sports apps companies with rich interface and many types. Different sports software, interfaces, and types bring different feeling. Thus, the research recommends taking the case study as a case to discuss the current status of different software experiences.

(5) Use other research methods to obtain more research results and information

Traditional sports-related researches and social science researches are mostly conducted with statistical verification and single perspective. Experimental-type researches are mostly concentrated on physical and mental health. There are very few on having sports apps as the main focus that explores the impact on physical and mental health by user motivation, involvement, and satisfaction. If the aforementioned traditional research methods can be used to authenticate the results of the research, the related realm of the research will be well rounded.

Data Availability

No specific data were used to support this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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