

Designing a Structural Model of the Effects of Using Sports Brands on Children's Sports Participation: The Mediating Roles of Appearance Attractiveness, Enjoyment, and Social Identity

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Abstract

Background: It has been well documented that participating in regular sport activities can promote physical and mental health in children. However, recent data revealed that most children worldwide tend to be less physically active and do not participate in regular sport activities. Therefore, it is important to find the factors affecting participation of children in regular sport activities. Hence, in this study, the effects of the use of sports brands on children's participation in sports activities has been investigated, considering the mediating role of appearance, attractiveness, enjoyment, and social identity.

Method: Sample of the study included 384 boys and girls aged 10 to 12 years old. The children were selected by the use of convenience sampling. Data was collected using standard and self-made questionnaires. Structural Equation Modeling (SEM), using Lisrel software, was used to examine structural relationships between research variables.

Results: SEM results revealed that sport brands had significant and direct effects on sports participation. Appearance, attractiveness, enjoyment, and social identity had also significant and direct effects on sports participation. In addition, appearance, attractiveness, enjoyment, and social identity significantly and directly mediated the association between sport brand and sports participation. Results of model fit showed that our model has a good fit (RMSEA=0.07).

Conclusion: This study shows that using sport brands may play a significant role in the participation of children in sport activities, confirming the importance of sport brands on sports participation among children.

Key Words: Sport brand, Sports participation, Attractiveness, Enjoyment, Social identity.

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1- INTRODUCTION

Adopting a sedentary lifestyle is a risk factor for physical and mental health of children (1-2). On the other hand, it has been shown that participating in regular sport activities can promote physical and mental health. For example, previous studies have shown that participating in regular sport activities can prevent or delay various chronic diseases and premature mortality (3-6). In addition, several studies have demonstrated that participating in regular sport activities leads to reducing symptoms of depression and anxiety (7-11). Despite numerous benefits of participating in regular sport activities, recent data worldwide has revealed that most of children tend to be less physically active and do not participate in regular sport activities, which is mostly due to modern lifestyle and use of electronic devices (12); so that only 20-25% of girls and 35-40% of boys, currently, participate in regular sport activities (6-12). This is the case for Iranian children, as well (10-13). Another line of research has shown that adopting an active or sedentary lifestyle will remain in later years (i.e., adulthood) (14-15). On the basis of these findings and due to its numerous benefits, participation of children in regular sport activities has become a key research issue during the last decades. Many studies have attempted to find the factors affecting children's participation in regular sport activities. A less investigated factor may be sport brand. This study was designed to investigate the effects of sport brands on the participation of children in sport activities.

Sports brands are brands that provide specific and corporate peak performances in the sports sector and express them in condensed forms (16-17). Brand is basically the image that a product has in the mind of its audience. This image has a great effect on increasing the value of the product, so that it increases the value of

the brand for the customer and leads to customer loyalty to a particular brand (18-19). Therefore, branding a product is a way to create a sustainable and distinct advantage for it, over other products. Several studies have proven that customer satisfaction has a direct relationship with customer loyalty and product branding (20-21). Therefore, the main component of profitability in businesses is customer satisfaction, and the absence of satisfying factors is certainly the reason for the failure of some companies. In addition to the commercial effects of brand value, sports brands can be considered as an exciting factor for children's participation in sports activities. Using sports brands can increase the motivation and excitement of children to participate in sports activities. In fact, children's participation in sports depends on several factors. Some studies have shown that factors such as the parents' socio-economic level, teaching style of physical education teachers, and availability of a playing and sports environment are among the most important factors affecting children's sports participation (10-13). However, there are other factors such as the use of sports brands that can affect children's participation in sports activities. In this study, it has been investigated whether the use of sports brands can have an effect on children's participation in sports events.

In addition, in the present study, some variables (el appearance, attractiveness, enjoyment, and social identity) that can possibly have an effect on the relationship between the use of sports brands and children's participation in sports activities have been investigated. These variables may be considered as possible mechanisms of sports brand influence on children's participation in sports activities. Therefore, in this study, the effects of the use of sports brands on children's participation in sports activities has been investigated, considering the mediating role of

appearance, attractiveness, enjoyment, and social identity.

2- MATERIALS AND METHODS

2-1. Participants

Sample of the study included 384 boys and girls aged 10 to 12 years old. Convenience sampling was used for sample selection.

2-2. Questionnaires

Use of sport brands was measured using a self-made questionnaire including three questions scored based on 5-point Likert scale from completely disagree (1) to completely agree (5).

In this study, Cronbach's alpha reliability of this questionnaire was assessed as 0.88. In addition, sport participation was measured using the Physical Activity in Leisure-Time Scale (11-12) with three items scored based on an eight-point Likert scale from zero days (0) to seven days (7).

Cronbach's alpha coefficient of the scale was estimated as 0.90, in the current study. Enjoyment was measured using a self-made questionnaire for the assessment of enjoyment in sport activities. The questionnaire has four items scored according to a 4-point Likert scale from "never" to "always". In this study, we measured the reliability of this questionnaire with a Cronbach's alpha coefficient of 0.87. Finally, social identity

was measured using a standard questionnaire (22) with 20 questions scored on a 5-point Likert scale from completely disagree (1) to completely agree (5).

In this study, we measured the reliability of this questionnaire with a Cronbach's alpha coefficient of 0.92.

2-3. Data analysis

Mean and standard deviation were utilized to describe the demographic data and research variables. Kolmogorov-Smirnov test was used to assess normality of data. Pearson correlation test was used to investigate the bidirectional associations between research variables. Structural Equation Modeling (SEM), through Lisrel software, was implemented to examine structural relationships between research variables. P-value was set at $P < 0.05$.

3- RESULTS

3.1 Demographic data

Table 1 shows the demographic characteristics of our sample including age, weight, height, body mass index (BMI) across gender. Mean age of the boys was 11.09 years and that was 10.85 years for girls. Our data showed that BMI was identical in boys and girls. It was 16.88 and 16.50 for boys and girls, respectively.

Table-1: Demographic characteristics of the participants

Variable	Age	Weight	Height	BMI
Boys	11.09±0.83	33.22±5.51	136.15±8.61	16.88±1.33
Girls	10.85±1.01	32.66±4.61	134.35±7.55	16.50±1.61
Total	10.99±0.95	32.96±4.99	135.75±7.98	16.75±1.52

3-3. Descriptive data

Mean and standard deviation of research variables as well as the results regarding the normality of data distribution are

presented in **Table 2**. The results showed that the data was normally distributed (all $P > 0.05$).

Table-2: Mean and SD of research variables as well as the normality of data distribution

Variable	Sport brand	Sport participation	Appearance attractiveness	Enjoyment	Social identity
Mean \pm SD	2.51 \pm 1.12	2.94 \pm 1.59	3.91 \pm 1.61	3.61 \pm 1.01	2.18 \pm 1.92
Statistic	0.054	0.023	0.040	0.090	0.085
Sig.	0.568	0.697	0.592	0.254	0.297

3-3. Pearson correlation

Table 3 shows the results of Pearson correlation test. As presented in the table, sport brands were significantly associated with sports participation ($P < 0.001$).

Similarly, appearance, attractiveness, enjoyment, and social identity were all significantly associated with sports participation ($P < 0.001$).

Table-3: Results of Pearson correlation test

No.	Variable	1	2	3	4	5
1	Sport brand	-		-	-	-
2	Sports participation	r=0.397 P<0.001	-	-	-	-
3	Appearance attractiveness	r=0.485 P<0.001	r=0.554 P<0.001	-	-	-
4	Enjoyment	r=0.691 P<0.001	r=0.408 P<0.001	r=0.518 P<0.001	-	-
5	Social identity	r=0.419 P<0.001	r=0.348 P<0.001	r=0.540 P<0.001	r=0.403 P<0.001	-

3-3. Structural equation modeling

Results of SEM (**Table 4** and **Fig. 1**) showed that sport brands had significant and direct effects on sports participation ($T=4.225$). Moreover, appearance attractiveness ($T=6.723$), enjoyment ($T=5.947$), and social identity ($T=4.037$) had significant direct effects on sports participation ($P < 0.001$). In addition,

appearance attractiveness ($P < 0.001$), enjoyment ($P < 0.001$), and social identity ($P < 0.001$) had significantly and directly mediated the association between sport brand and sports participation. Results of model fit are shown in **Table 5**. As it can be observed, our model enjoys a good fit ($RMSEA=0.07$).

Table-4: Results of structural equation modeling

No.	Path	β	T-value
1	Sport brand \Rightarrow Sports participation	0.441	4.225
2	Appearance attractiveness \Rightarrow Sports participation	0.511	6.723
3	Enjoyment \Rightarrow Sports participation	0.481	5.974
4	Social identity \Rightarrow Sports participation	0.401	4.037
		Z	P-value
5	Sport brand \Rightarrow Appearance attractiveness \Rightarrow Sports participation	4.647	P<0.001
6	Sport brand \Rightarrow Enjoyment \Rightarrow Sports participation	5.518	P<0.001
7	Sport brand \Rightarrow Social identity \Rightarrow Sports participation	4.428	P<0.001

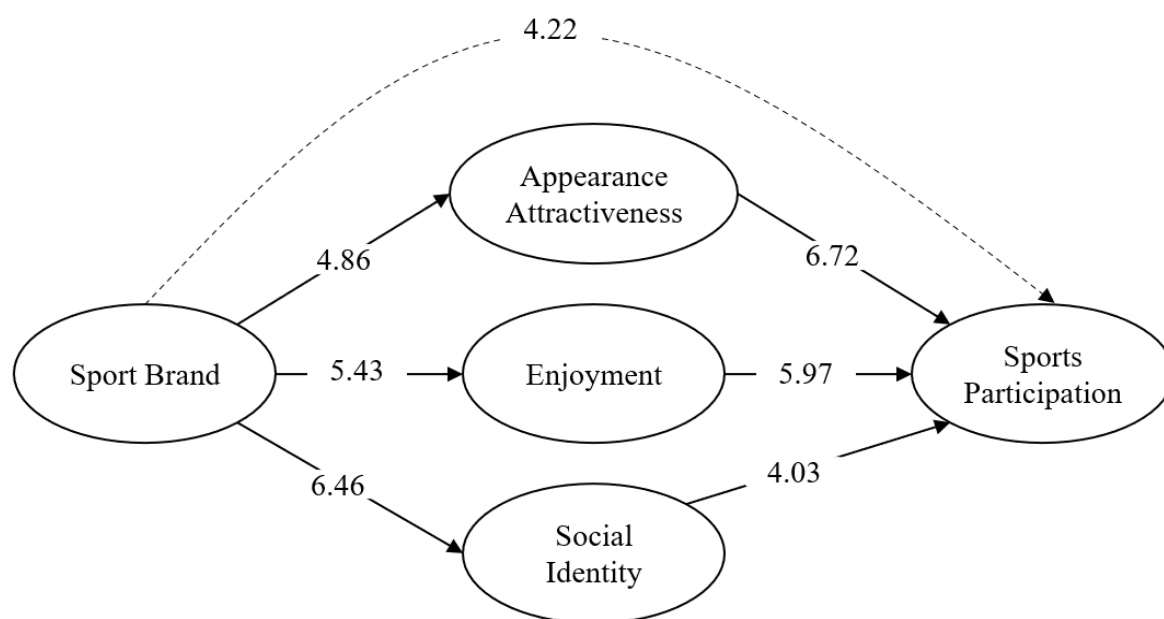


Fig. 1: Structural equation modeling

Table-5: Results of model fit

Index	Optimal Range	Obtained Value	Conclusion
RMSEA	< 0.08	0.07	Good fit
X2 / df	< 3	2.66	Good fit
RMR	Closer to 0	0.02	Good fit
NFI	> 0.9	0.96	Good fit
CFI	> 0.9	0.96	Good fit

4- DISCUSSION

It has been shown that participating in regular sport activities can promote physical and mental health in various age ranges including children (1-7). However, recent data revealed that most children worldwide tend to be less physically active and do not participate in regular sport activities (9-12). Therefore, it is important to find the factors affecting children’s participation in regular sport activities. Hence, in this study, the effects of the use of sports brands on children’s participation in sports activities has been investigated with a consideration to the mediating role of appearance, attractiveness, enjoyment, and social identity. Concerning the level of

sport activities, we found that overall, the children in this study do not participate in enough levels of sport activities. These findings are in accordance with those of previous studies (10-13), showing that, recently, children adopt mostly a sedentary lifestyle. As such, it should be noted that the children in this study and worldwide need special attention and appropriate strategies to enhance their participation in sport and physical activities. As the results of this study showed, using sport brands may play a significant role in the participation of children in sport activities. In fact, we found that using sport brands has a significant direct effect on the participation of children in sport activities. These findings are in accordance with the previous findings showing the importance

of sport brands on consumer behaviors (16-21).

Sport brand's clothes with any color can affect the child's self-belief and self-confidence in attending sports activities (16-17). If the child's choice of sportswear matches his tastes, his self-confidence will increase and improve his motivation and participation in sports (19). On the other hand, children may participate less in sports due to the negative and strange feelings they have about their clothes (18-21). As soon as clothes are worn, the brain motor is activated and the parts of the brain hemispheres, which are called the center of excitement, happiness, sadness, information analysis, etc., start working automatically (20). Sportswear, such as sports brands, in which the child feels happier and more excited, can directly affect these centers.

The findings of this study also confirm the above-mentioned mechanisms, since we found that appearance, attractiveness and enjoyment mediate the associations between sport brand and participation of children in sports activities. Authentic sports brands try to make their products attractive (23). This attraction can include the color and appearance of the clothes. Therefore, by increasing the attractiveness of sports clothes, it can be assumed that children will feel better about the sport they participate in, and this feeling of pleasure can create a basis for their participation again and more in that activity (24). Moreover, social identity was a significant mediator in the association between sport brand and participation of children in sports activities. It has been shown that the social identity and image of the brand reduces the perceived risk of the consumer about the brand and increases his satisfaction and loyalty. Furthermore, a brand that has a suitable identity image in the minds of people goes through the positioning process more easily, because a brand that has a strong and positive

identity is easier to find a place in the customer's mind. Thus, it can be assumed that social identity of sport brands will motivate the children to participate more in sport activities.

4-1. Limitations of the study

Although this study provided novel findings, it has some limitations, too. First, we did not specifically include children who engage in official sports clubs. The children in this study may have not experienced any sport clubs at all. In fact, the reported low levels of sport activities may be due to this fact. Future studies should focus on children with more experiences in sports clubs. Second, although our sample was relatively large, larger samples may provide more accurate data for conducting a structural equation modeling.

5- CONCLUSION

Overall, the children in this study were not found to have enough levels of participation in sport activities. The children in this study and worldwide need special attention and appropriate strategies to enhance their participation in sport and physical activities. In addition, using sport brands may play a significant role in the participation of children in sport activities, showing the importance of sport brands on sports participation among children. Finally, appearance, attractiveness, enjoyment, and social identity mediate the associations between sport brands and participation of children in sports activities. These findings indicate the importance of motivational and social factors affecting children's participation in sports activities.

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