

## The Intellectual Capital and Its impact on Firm Performance of the Apparel Industry of Sri Lanka

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**Abstract:** This paper focused on to analysis the impact of the intellectual capital on organizational performance of the Apparel industry of Sri Lanka. The intellectual capital is very important intangible assets of an organization in the new business environment. This study was conducted in Sri Lanka by using random sampling methods. The structured questionnaires were administrated and distributed among the executives and managers in the Apparel industry of Sri Lanka. The impact of intellectual capital on organizational performance of the apparel industry was tested by Pearson correlation analysis. The analysis results reveal that the intellectual capital has positive relationship on the organization performance. This study results will be useful for the apparel industry to understand and implement the intellectual capital practices to improve the organizational performance.

### 1. Introduction

The intellectual capital is most important ingredient to improve the organizational success in the competitive environment in the present era. The main ingredient of the industrial economy were labour, land, financial assets and other physical assets. The intellectual capital has become a key intangible asstes to make added values and it is important factor compared to physical capital and others in the present knowledge based economy [1], [2],[3]. Intellectual capital is defined as a set of accumulation of all knowkedge that is able to leverage in the process of business to gain competitive advantage, such as knowledge accumulates over time and resides in people, structures, processes, systems, and databases of an organization. The intellectual capital is most important resourses for copetitive advantage of the organizations which lead to increase the firm performance as well as country's economy, it is most powerfull sourse to influence on organization performance positively [4], [5], [6]. However, The role of Apparel industies are highly acknowledged and very important sector in the developing economy. This sector has been developed as a knowledge based in dynamic and competitive environment in the world.

The apparel industry is a good sector for study on intellectual capital issue. This sector is knowledge intensive and its entire staff are moreover are identical intellectually from the last decade, the Apparel sector has been undergoing dramatic change in both organizational and technological advancement pushing top management to reformulate their business strategies. In addition, Bhartesh and Bandyopadhyay [8] pointed out that it is very important for organizations to understand their intellectual capital assets and should need to be managed if the organization wants to be successful in competitive environment. Therefore, it is indispensable that the executives and managers of the apparel industry learn to employ the intellectual capital to improve the organizational performance.

Sri Lanka is a developing country and a small tropical island off the southern tip of India which is situated in South Asia. In fact apparel industry is one of the most lucrative foreign exchange earnings for the Asian region. In Sri Lanka the Apparel sector is a one of largest incomes generating sources, it has contributed to the 52% of the export earnings. And also this sector has directly involved about

more than 330 000 people as workforce all over the country [9]. There are 177 small, 468 medium, and 246 large scale of 891 garments factories which produces around 500mn.pcs.per annum of which woven accounts for 55%, and knitted 45% [10]. The apparel industry spreads the huge area of the country & can be seen number of factories are operating in every district in the country except Northern Province. The significant character of this industry is 85% young women employees are been employed as workforce. Talking about apparel industry, industry use low technology & it can be introduced as labour intensive industry [11]. The apparel industry is labour intensive industry, so individual behavior & attitudes of these industry workers are very important to identify. Especially in manufacturing industry, the labour is crucial input.

## 2. Literature of study

The intellectual capital is set of knowledge to create added value to the organizations [7], [12]. The important of intellectual capital is widely accepted in the present economy, which is referred as accumulation of knowledge, skills, ability, expertise and experience that can lead to competitive advantage [13]. In addition, Intellectual capital has been defined as the knowledge that firms utilize for competitive advantage and it includes human capital (knowledge, skills, and abilities of individuals), organizational capital (routines, processes, system and databases), and social capital (interactions among individuals and their networks of relationships) [30]. Moreover, intellectual capital is mainly based on intangible assets, like knowledge, skills, customer satisfaction, loyalty, policies, procedures, social values, intellectual property, industrial property, faith, ethics etc., [14]; [16]; [15]; [17]; [3]. According to literature the intellectual capital was mainly discussed on structural capital, customer capital, human capital, technological capital, social capital, and spritual capital. In this paper, human capital, social capital, and organizational capital were summarized as components of intellectual capital and tested empirically.

Human capital is a critical factor that create intellectual capital in organizations, and it is critical for creativity and innovation [15]; [14]; [13], [19]. Human capital is mainly based on knowledge, abilities, talent, know-how, skills, experience, and education of individual employees in the organization [18]. Snell and Dean [20] pointed out that human capital is the knowledge, skills, and abilities residing in and utilized by individual employees and creates value for firms in return for the investments made in them. Human Capital as the combined of innovative knowledge, ability skills of individuals to meet the goals, including culture, philosophy, expertise and values.

Organizational capital is one of the most important variable of intellectual capital which is a glue of the organization. This organizational capital is based on system, guideline, processes, structures, procedures and rules of organizations. It is encompasses of all non human stock of knowledge in the every organizations, that includes procedures, policies, routine, database, formula, and competitive intelligence of the organizations [21],[22]. Organizational capital is hardware, software, databases, structure, patents, trademarks and capability of organizations that supports those employees productivity [14]. Organizational capital is knowledge that is owned by the organization and, as Youndt et al. (2004) [30] have indicated, that is the knowledge, skills, and information that stay behind when an organization's people go home.

Social capital is recognized as key variable of intellectual capital, It creates broad and tacitly understood norms for appropriate action and increases the density of linkages or connectedness within a firm-thereby facilitating knowledge exchange among its members. Organizations which having high social capital can take more competitive advantage and mainly based on three dimensions which are mostly accepted as structural, cognitive and relational which create added value to the intellectual capital [23]. It creates and encourages the development of trust, cooperation, and communication among organizational members. Thus, firms with higher levels of connectedness among its employees are better positioned to make their employees aware of what knowledge the organization

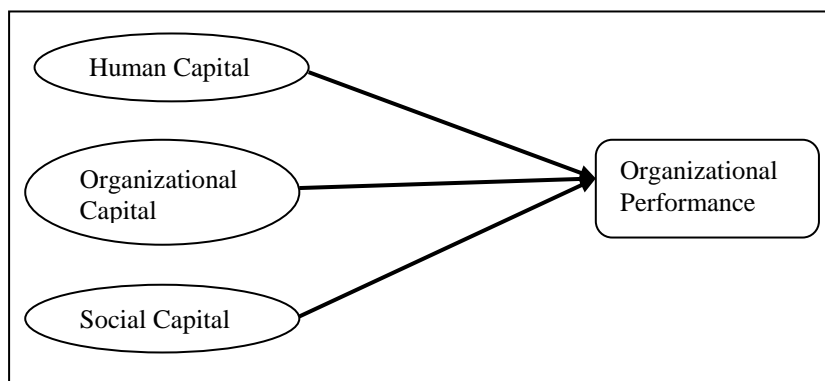
already possesses, who knows what, who can help with what problem, and who can exploit new information [31]. Therefore, the social capital has value of human connections is based on personal networks [24] that includes values, attitudes, and relationships which manage interactions among people and contribute to economic and social development, and playing highly significant role to develop the intellectual capital in an organization.

### 3. Intellectual capital and Organizational performance

In the literature, many studies have been indicated that the intellectual capital and organizational performance have significant impact relationships. The dimensions of the intellectual capital are human, social and organizational capital which are the main sources of performance in the organizations [15], [3]. The literature stressed that the one or several dimensions of the intellectual capital could effect the organizational performance. However, the effect of intellectual capital have varying magnitudes [18]; [3]. Previous studies have found that intellectual capitals have significant relationship with organizational performance. [15], [18], [21].

In order to identify the relationship of intellectual capital organizational performance of the apparel industry of Sri Lanka, the human, organizational and social capitals were employed as a set of variables of the intellectual capital. The conceptual model which adopted for this study is shown in Figure 1. Three research hypotheses were developed to test the relationship between intellectual capital and organizational performance, there were strong support from literature that there are positive relationships between intellectual capital and organizational performance [17], [18], [25], [13]. The flow of relationships between the variables can be seen in Figure 1.

Figure 1: Conceptual Framework



The following three research hypotheses were developed for this study.

**H1:** Human capital has positive relationship with organizational performance of the Apparel industry of Sri Lanka.

**H2:** Organizational capital has positive relationship with organizational performance of the Apparel industry of Sri Lanka.

**H3:** Social capital has positive relationship with organizational performance of the Apparel industry of Sri Lanka.

### 4. Research Methodology

The research strategy used in this study is using qualitative and quantitative methods, survey questionnaires were developed to measure relationships between intellectual capital and organizational performance. A amended of structured questionnaires having 42 items were used for this study to collect the data from executives and managers of the Apparel industry of Sri Lanka [26],

[27], [15], [1] [21], [13]. During amendments of questionnaires we ensure that the relevant to the context of Sri Lanka and Apparel industry. The developed 150 questionnaires were distributed to the selected Apparel industry of Sri Lanka, and 70 set of complete questionnaires were received which 47% of response rate considered as a good.

The equation for business performance was expressed in the following equation:

$$Y_p = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e, \text{ Where,}$$

$Y_p$  = Organizational performance

$\beta_0$  = constant (coefficient of intercept)

$X_1$  = Human capital

$X_2$  = Organizational capital

$X_3$  = Social capital

e = error

$\beta_1, \beta_2, \beta_3$  = regression coefficient of three variables .

The data were screened and cleaned, the Cronbach alpha was used to ensure the reliability of the variables. The cronbach alpha results domonstrated that organizational capital has 0.911 of coefficient, human capital has 0.848, social capital has 0.881 of coefficient, and organizational performance has 0.910 of coefficient. In summary, all variables had more than the suggeted value of 0.5. Therefore, according to reliability test reveal that the scale of variables were reliable to measure the indepentant and depentant variables. The following Table 1 shown the results of reliability test.

Table 1: Reliability Test of Constructs

Variables	Cronbach Alpha
Human Capital ( $X_1$ )	0.848
Organizational Capital ( $X_2$ )	0.911
Social Capital ( $X_3$ )	0.881
Organizational Performance ( $Y_p$ )	0.910

Source: Survey data

## 5. Results

As indicated earlier, this study try to test the developed three hypothesis that all the intellectual capital and organizational performance has positive relationship in the apparel industry of Sri Lanka. In order to test the hypothesis, this study used pearson correlation analysis. The correlations between all attributes of intellectual capital and organizational performance were positive and significant at the 0.01 level (2-tailed). These results revealed support for all hypothesis that the sets of variables of intellectual capital and organizational performance has significantly positive relationships in the apparel industry of Sri Lanka. The correlation analsis results were shown in Table 2.

Table 2: Descriptive statistics and Pearson Correlation

Variables	Mean	SD	HC	OC	SC	OP
Human Capital (HC)	3.73	0.745	1			
Organizational Capital (OC)	3.70	0.813	0.826 0.000	1		
Social Capital (SC)	3.85	0.734	0.743 0.000	0.712 0.000	1	
Organizational Performance (OP)	3.78	0.883	0.781 0.000	0.800 0.000	0.742 0.000	1

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

Source: Survey data

This results confirms that the strong influence of intellectual capital overall on organizational performance. The study also found that all three dimensions of intellectual capital adopted in this study namely; human, social, and organizational capital are also having strong and positive influence on organizational performance for the apparel industry of Sri Lanka. The results showed that compared to other set of variables. Moreover, the finding of the pearson correlation organizational capital has more positive relationship with organizational performance, human capital is second and social capital the third variable that showed positive relationship with organizational performance. Therefore, these findings were supported the three hypothesis of study. The empirical results of this study showed that intellectual capital have positive significant relationship with the organizational performance of apparel industry of Sri Lanka. Theoretically, previous studies were supported the findings of this study such as [28], [18], [21], [4], [3]. Finally, the results showed that the set of variable of intellectual capitals have vital contributions to the organizational performance.

## 6. Conclusion

The study aims to investigate the influence of intellectual capital on organizational performance in the apparel industry of Sri Lanka. Generally, this study concludes that the organizations are paying special attention to intellectual capital to enhance organizational performance in the present economy. The study found overall significant influence of intellectual capital on organizational performance for the case of apparel industry in Sri Lanka. As a results also reveal the three dimensions of the intellectual capital: human, social, and organizational were showed significant association with organizational performance. According to finding the study suggests that the intellectual capital play a significant role to enhancing the organizational performance in the apparel industry of Sri Lanka.

The finding of this study will be useful to practitioners, policy makers and top level managers to ensure systematic use of its intellectual capital. This is a preliminary study to analysis the intellectual capital in the apparel of Sri Lanka. Therefore, this study is more important for practitioners to explore their intellectual capital in more appropriate way. This study also has some limitations like the sample size was small, therefore the finding of the study may not be applicable to all industries. In addition, further research will be needed to confirm the result in another sample for more generalized results. Finally, would like to recommend the potential contributors to conduct their study which will incorporated all the sets of intellectual capital.

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