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INNOVATIVENESS IN THE SRI LANKAN PLANTATION SECTOR: INFLUENCE OF LEADERSHIP STYLES AND ORGANISATIONAL CULTURE

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ABSTRACT

This study aims to investigate the impact of leadership styles on organisational innovativeness in the Sri Lankan plantation sector, with organisational culture as the mediating variable. Using a self-administered questionnaire, data was collected from 235 estate managers based on the constructs identified in the literature. The findings provide partial support to the hypothesised relationships. Although studies between leadership styles, organisational culture and organisational innovativeness exist, they are mostly conducted in isolation. The most intriguing part of this study is probably the consistent practices of the one and a half century-old industry which have been passed down from one generation of estate managers to another. Lack of innovativeness as well as absence of a conducive organisational culture for effective leadership have led to the deteriorating contributions of the sector to Sri Lankan economy. The findings provide insights in terms of developing and implementing specific strategies that can enhance organisational innovativeness through effective leadership styles and conducive organisational culture, which can be very important to revive the plantation sector to its glorious days.

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INTRODUCTION

The contributions of the plantation industry to the economic and social developments of Sri Lanka for the past one and a half century have been enormous. Being the highest foreign exchange earner until the mid-eighties, the industry also used to be one of the biggest direct and indirect employment generating industry. Although the sector still makes a significant contribution of 2.6% to the Gross Domestic Product (GDP) of Sri Lanka (Central Bank of Sri Lanka, 2006), its contribution is slowly diminishing. The current export earnings of the sector compared to other emerging industries such as garment and tourism are far from satisfactory level. For example, export earnings from Sri Lankan tea and rubber in 2010 was at a meagre USD1.37 billion and USD0.17 billion respectively, whilst the garment industry, which is less than 35 years old, has contributed USD 3.35 billion to the economy, with USD1.04 billion coming from the tourism industry (Central Bank of Sri Lanka, 2012). In terms of employment, the plantation sector directly employed 802,492 people in 2011, which account for 9.4% of the total workforce. However, the garment industry employed 486,587 people in 2012 (Department of Labour, 2012). Hence, it can be said that the plantation sector, considered to be highly traditional and labour intensive, still maintains its status quo, making only incremental changes to the existing crops and its value addition.

Although tea, rubber and coconut continue to be the main crops, value addition in terms of quality and quantity yet remains way below international benchmarks and threshold level. On the contrary, countries like Malaysia and Indonesia have converted their lands of rubber and other agricultural commodities for the more viable palm oil plantation since 1960s. Although palm oil is primarily used for cooking, Malaysia and Indonesia have further displayed their innovativeness by venturing into great value additions, having

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products good enough to be sold in Western supermarkets in the forms of Dove soap and Ben and Jerry ice cream, to name two. There were also initiatives to convert palm oil into biodiesel, thus maintaining the position of Malaysia as the largest export earner (Malaysia Palm Oil Board, 2011).

In an era where the external environment is changing at a rapid pace and that business activities are becoming volatile by the day, novel business solutions are required through product process and business innovation in Sri Lanka. However, lack of organisational innovativeness through effective leadership styles and conducive organisational culture in the plantation industry has been the primary reason for the prevailing challenge for its existence (Bogahalande and Chong, 2015).

The Sri Lankan plantation industry has stagnated and this has created a negative impact on the viability of the industry itself as evident from its contributions to the Sri Lankan economy. Although scholars have extensively researched on organisational innovativeness, its relation to leadership styles and organisational culture has been studied in isolation (Anderson et al., 2004; Banutu-Gomez, 2011; Basadur, 2004). It is obvious that the Sri Lankan plantation context has been far away from such research. The non-availability of any substantial research and the absence of any theoretical basis to build upon a research platform clearly indicate the unanswered questions in relation to organisational innovativeness, conducive organisational culture and effective leadership styles in the Sri Lankan plantation sector (Bogahalande and Chong, 2015). The current management style is not competent in solving problems arising from the impact of economy, political, social and environmental grounds, primarily due to the absence of a conducive organisational culture and subsequently an innovative orientation.

The situation is very different from leaders of plantation sectors in other economies such as Malaysia and Indonesia who understand the importance of innovativeness through conducive organisational culture and effective leadership styles. Various innovative measures have been adopted to enhance their profitability and sustainability such as in the case of land conversion for palm oil and the various products developed. Without such initiatives in Sri Lanka, it remains a huge challenge for the sector to move up the value chain again and regain its position to its glorious days.

An in-depth research of this nature is therefore necessary and timely to address the gaps and provide solutions to the plantation industry and the country at large. It is against these backdrops that this study aims to investigate the importance and extent of leadership styles and organisational innovativeness in the Sri Lankan plantation sector as influenced by organisational culture. The rest of the paper is structured as follows. The next section reviews the extant literature which resulted in the development of a research framework and hypotheses to be tested. The methodology employed is described next. This is followed by the findings and implications. The last section concludes the paper by recommending practical solutions as well as suggesting future research directions.

Literature Review

Organisational Innovativeness

Organisational innovativeness refers to organisational-wide tendency to introduce 'newness and novelty' through experimentation and research, targetingat the development of new products, services or processes (Dess and Lumpkin, 2005) through a certain business model into the marketplace, either by utilisation or commercialisation (Gamal et al., 2011). These include product innovation, service innovation, process innovation and business model innovation to provide competitive advantage to an organisation. Research has shown that innovation leads to new products or services that are higher in quality and cheaper to produce, and that research and development is only one of the steps (Neely and Hii, 1998). Other innovative measures include positive acknowledgement given to creative business solutions, taking new approaches, trying new ways to accomplish tasks that are different from other people and norms, seeking new opportunities to achieve organisational objectives and the belief that innovation leads to prosperity (Neely and Hii, 1998).

Leadership Styles

Northouse (2012) defines leadership as a process whereby an individual influences a group of individuals to achieve a common goal. Three commonly used leadership styles in the plantation sector are discussed in this study. They are the charismatic, transformational and authentic leadership styles.

The history of charisma runs into many centuries. It was limited to theological discussions until Weber (1904) borrows it to discuss the rationalisation of Western society (Jayakody, 2008). The concept of charisma is defined as a certain quality of personality of an individual by virtue of which he or she is considered extraordinary and treated as endowed with supernatural, superhuman or at least with exceptional powers or qualities. These qualities are not to be accessible by the ordinary person, but regarded as of divine origin (Paul *et al.*, 2002; Weber, 1904). It is on these bases that the individual concerned is treated as a leader.

In the organisational setting, a charismatic leader is defined by his or her unique behaviour, new idea generation, inspirational, an influencer, display of empathiness, recognising the abilities and skills of others and is an excellent speaker (Conger-Kanungo, 1998; Institute of Behavioural Research, 2009; Puls, 2011). In an apparent return to the 'one best way of leadership', recent studies on leadership have contrasted 'transactional' leadership with 'transformational' leadership. Accordingly, transactional leaders are said to be instrumental and frequently focus on exchange relationships with their subordinates. In contrast, transformational leaders are argued to be visionary and enthusiastic with an inherent ability to motivate subordinates (Ogbonna and Harris, 2000). Ogbonna and Harris (2000) label transformational leaders as visionaries and role models where they seek organisational over personal interests, take strategic actions by motivating subordinates to transform the business, develop new goals, encourage individual and organisational learning as well as exhibit high morality and self-confidence.

Authenticity, as first referenced in management and organisational literature, views the authentic capacity of a leader as a litmus test of executive quality (Emuwa, 2013; Kliuchnikov, 2011). Authentic leadership can be defined as a pattern of transparent and ethical leader behaviour that encourages openness in sharing information needed to make decisions whilst accepting inputs from followers (Avolio *et al.*, 2009). Based on the definition, an authentic leader seeks feedback on how others view his or her capabilities and to improve interactions, is truthful in his or her conversation and to actions, willing to admit mistakes, make decisions based on core values and take into consideration different viewpoints before making conclusions.

Organisational Culture

Deshpande and Webster (1989) refer organisational culture as patterns of shared values and beliefs that help individuals understand organisational functioning and thus provide them norms for behaviour in organisations. It has been an important theme in management and business research for several decades due to its potential affect on a range of organisational and individual desired outcomes such as commitment, loyalty, turnover intention and satisfaction (Chow et al., 2001). The theoretical model of cultural traits developed by Denison and Mishra (1995) uses two contrasts, between internal integration and external adaptation, and between change and stability. Involvement and consistency focus on the dynamics of internal integration, whilst mission and adaptability address the dynamics of external adaptation. This is consistent with the observation by Schein (1990) that culture is developed when an organisation learns to cope with the dual problems of external adaptation and internal integration.

In addition, involvement and adaptability describe the traits related to the capacity of an organisation to change, whilst consistency and mission are more likely to contribute to the capacity of an organisation to remain stable and predictable over time (Denison and Mishra, 1995). Specifically, the cultural trait of involvement means high level of participation of team members in an environment of widely shared information through greater reliance on coordination than hierarchy. Team members are recognised as a source of competitive advantage and therefore, their greater involvement and participation can have a positive impact leading to a sense of ownership and responsibility, and ownership in turn grows into greater commitment to the organisation and an enlarged capacity to operate due to autonomy. Increased input from employees through involvement is also viewed as increased quality in decisions and their implementation (Denison and Mishra, 1995).

This is a classical theme in organisational theory as reflected in the works of Likert (1961, 1967), McGregor (1960) and many other scholars (Argyris, 1964; Lawler, 1986; Ouchi, 1981; Peters and Waterman, 1982; Walton, 1986). The cultural trait of consistency explains how consistent or uniform the behaviour and treatment are to all levels of employee categories across functional units. This trait is important due to its greater relationship to change and adaptation. Organisational culture that is high in consistency presents positive and negative influences to the organisation. The positive aspects include the provision of integration and coordination, whilst the negative aspects being high resistance to change and adaptation (Denison and Mishra, 1995). According to Fey and Denison (2003), in such a culture, leaders and managers follow guidelines that they set for the organisation, arrive at solutions that benefit both parties when disagreements occur and that people from different units share a common perspective. In essence, the cultural trait of adoptability refers to the initiative and the level of responsiveness of the internal environment to suit to the changing demands from external environment.

Specifically, adoptability is described as the capacity to redefine underlying characteristics in response to large-scale change or the capacity of an organisation for internal change in response to external demands (Dorfman et al., 2004). Organisations with such cultural trait tend to continually adapt to new and improved ways of doing work, pay attention to the interests of customers as well as encourage and reward employees who take risks (Fey and Denison, 2003). Finally, the cultural trait of mission explains the long term orientation and widespread agreement about the goals and strategy of the organisation. Denison and Mishra (1995) clearly outline the importance of mission to culture and organisational effectiveness. As a matter of fact, many researchers (Hamel and Prahalad, 1989; Robbins and Duncan, 1988) concur that a clear mission provides two major influences on the functioning of the organisation. They encompass: (1) shared purpose and meaning; and (2) appropriate course of action for the organisation, its leaders and members.

Relationships between Leadership Styles, Innovativeness and Organisational Culture

Very few studies have explored the relationships between leadership styles, innovativeness and organisational culture in a single setting. A study by Wu et al. (2001) found involvement to be the most significant mediator for transformational and authentic leadership styles. The study conclude that even leaders who do not possess supernatural or extraordinary qualities for leadership-based innovativeness can still achieve organisational-based innovativeness through the mediating effect of involvement. However, Paulson et al. (2009) discovered that although charismatic leadership style displays a direct positive relationship with both types of innovativeness, organisational culture does not show any significant mediating relationship with both organisationalbased and leadership-based innovativeness. It appears that exiting findings are mixed and that other variables remain to be tested.

Research Framework

Figure 1 shows the research framework of this study. It portrays the posited relationships between the three variables, namely organisational innovativeness, leadership styles and organisational culture. The literature suggests that leadership styles have significant relationships with organisational innovativeness through the mediating effect of organisational culture. As such, leadership styles constitute the independent variable, whilst organisational innovativeness represents the dependent variable. Organisational culture serves as a mediating variable in this research.

Hypotheses

Based on the research framework, four main hypotheses are developed for this study as follows:

H1: There is a relationship between leadership styles and organisational culture.

H2: There is a relationship between organisational culture and organisational innovativeness.

H3: There is a relationship between leadership styles and organisational innovativeness.

H4: Organisational culture mediates the relationship between leadership styles and organisational innovativeness.

Instrument

The questionnaire addresses the three components based on the objectives of study and the hypotheses constructed. It is based on six sections. Sections 1, 2 and 3 collect information on the three types of leadership (charismatic, transformational and authentic). Section 4 contains statements measuring organisational culture, whilst Section 5 gathers information on innovativeness. The last section contains information on the demographic profiles of respondents. To capture the construct of leadership styles, the scales developed by Conger-Kanungo (1998), Institute of Behavioural Research (2009) and Puls (2011) were used. Charismatic leadership style is measured by 8 items such as: (1) often exhibits very unique behaviour that

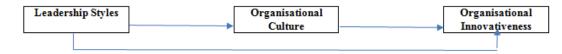


Figure 1. Research framework

MATERIALS AND METHODS

Sampling Procedures

The Sri Lankan plantation industry consists of twenty regional plantation companies (RPCs) managed by the private sector corporations and five large plantation companies managed by the state sector. This study focuses on estate managers in both the private- and state-managed plantation companies as the unit of analysis. According to the Statistical Information on Plantation Crops (2012), there are a total of 400 estate managers in Sri Lanka. They are considered as the most senior officers at the operational level in the plantation sector. More importantly, they have a significant impact on organisational innovativeness and culture through their leadership styles. For the purpose of this study, they have been classified as senior managers/managers, group managers and general managers. Taking the cue from Krejcie and Morgan (1970), the recommended sample size for a population of 400 is 196 (Sekaran and Bougie, 2010).

The sample size for this study was taken as 235, after inflating by 20% for non-response. The selection of estate managers is based on the disproportionate, stratified random sampling method due to its representativeness of the population where elements from each stratum (plantation companies) are represented in the sample. Upon receiving the approval from the respective Chief Executive Officers, the questionnaires were distributed to the 235 respondents through e-mail, in which responses were obtained through the same mode as well. Table 1 shows the demographic profiles of respondents. The majority of them are managers who joined their respective plantation companies as assistant managers and have been with their companies since 1991. All of them are males due to the nature of the job. The majority of them have other qualifications, with few possess Master's degrees. Many of them are 31 years or older and this correspond with the year of which they joined the plantation companies. The same goes to the number of years of experience. About 91% of the respondents manage 251 or more employees.

surprises other members in the organization (CL1);(2) consistently generates new ideas for the future of the organization (CL2); (3) provides inspiring strategic and organisational goals (CL3); (4) influences others by developing mutual liking and respect (CL4); (5) uses non-traditional means to achieve organisational goals(CL5); (6) shows sensitivity for the needs and feelings of the other members in the organization (CL6); (7) recognises abilities and skills of other members in the organization (CL7); and (8) is an exciting public speaker (CL8).

Likewise, transformational leadership style is also measured by 8 items such as: (1) seeks organisational interest over personal interest (TL1); (2) motivates the entire workforce to transform the business (TL2); (3) encourages individual learning as well as organisational learning (TL3); (4) is a role model which others can follow (TL4); (5) exhibits high moral and self confidence (TL5); (6) takes strategic actions to transform the business (TL6); (7) develops new goals, processes and cultivate the aspiration to reach those goals (TL7); and (8) has a strong and shared vision in transforming the business to ensure sustainability and progress (TL8). The 8 items measuring authentic leadership style are as follows: (1)seeks feedback to improve interactions (AL1); (2) accurately describes how others view his capabilities (AL2); (3) says exactly what he means (AL3); (4) is willing to admit mistakes when they are made (AL4); (5) demonstrates beliefs that are consistent with actions (AL5); (6) makes decisions based on his core values (AL6); (7) solicits views that challenge his deeply held positions (AL7); and (8) listens carefully to different points of view before coming to conclusions (AL8).

Organisational culture is measured using the scales developed by Fey and Denison (2003). There are 12 statements such as: (1) everyone believes that he or she can have a positive impact (CI1); (2) we rely on coordination to get work done rather than hierarchy (CI2); (3) the capability of people is viewed as an important source of competitive advantage (CI3); (4) leaders and managers follow the guidelines that they set for the rest of the organization (CC1); (5) when disagreements occur, we work hard to achieve solutions that benefit both parties (CC2); (6) people from different organisational units still share a common perspective (CC3); (7) we continually adapt new and improved ways to do work (CA1); (8) the interests of the final customer often get ignored in our decisions (CA2); (9) we encourage and reward those who take risks (CA3); (10) there is a clear mission that gives meaning and direction to our work (CM1); (11) we have a shared vision of what this organisation will be like in the future (CM2); and (12) leaders of our organisation have a long-term orientation (CM3). In this context, CI refers to 'culture-involvement', CC refers to 'culture-consistency', CA refers to 'culture-adoptability' and CM refers to 'culture-mission'.

Organisational innovativeness is measured using the scale developed by Neely and Hii (1998). It is measured by 8 items such as: (1) positively acknowledges creative business solutions(IV1); (2) attempts to improve the organisation by taking a new approach to business as usual (IV2); (3) encourages staff to try new ways to accomplish their works (IV3); (4) suggests new ways of getting tasks completed (IV4); (5) seeks new opportunities in and out from the organisation for achieving objectives (IV5); (6) accomplishes tasks in a different manner from most other people (IV6); (7) tries new ways of doing things which are different from norms (IV7); and (8) always believe innovations leads to prosperity (IV8). Except for Section 6, all other sections adopt a four point Likert scale to measure the statements in the questionnaire, ranging from 4 - 'strongly agree'; 3 - 'agree'; 2 - 'disagree'; and 1 - 'strongly disagree'.

Goodness of Data

About 30 estate managers were piloted in order to determine the content validity of the questionnaire. The reliability of the instrument was tested using the test-retest and consistency methods (Sekaran and Bougie, 2010). The test-retest coefficients of leadership style, organisational culture and innovativeness were 0.81, 0.84 and 0.80, respectively, implying high reliability of the dimensions as well as strong internal consistency of responses (Hair *et al.*, 2010). In addition, construct validity is also determined through exploratory factor analysis to identify the correlational values, Kaiser-Meyer-Olkin (KMO) and variance to assess unidimensionality. The results are presented the next section.

Data Analysis Methods

The Statistical Package for Social Sciences (SPSS) version 16.0 software is used in this research. The hypotheses are tested using Pearson correlation coefficient method, followed by the multiple linear regression analysis. Prior to administering these tests, data was tested for multicollinearity and normality (Hair *et al.*, 1998). According to Sekaran and Bougie (2010), multicollinearity is minimised when the tolerance and variance inflation factor (VIF) values do not exceed the common cut-off point of 0.10 and 10, respectively. In this study, the values were within the parameters. Likewise, the normal multivariate kurtosis value is 5 where any value exceeding 5 is an indication that data are not normally distributed (Bryne, 2010). The kurtosis value of this study is

within the recommended level, indicating multivariate normality.

In order to test the mediating effects, Sobel's test is a more appropriate statistical method which explains a more precise picture of the mediation effect (MacKinnon and Dwyer, 1993). This research adopts the Sobel's formula to calculate the value of Z as follows:

$$Z= \sqrt{(axse(a))^2 + (bxse(b))^2}$$

where a and b are the unstandardised regression coefficient from the independent to the mediating variable and from the mediating to the dependent variable, respectively. The *se* is the respective standard error values.

RESULTS

Descriptive Statistics and Correlational Scores

Table 2 shows that the correlation values between the variables are less than 0.85. As such, there is sufficient discriminant validity between the constructs. In addition, the KMO values for CL, TL and AL were 0.834, 0.898 and 0.836, respectively. The mean scores for all the three leadership styles (CL, TL and AL) are high (more than 3.00 out of a 4-point scale). On an overall, the respondents perceive that they work for leaders with good charismatic, transformational and authentic leadership skills. As shown in Table 3, the mean scores for all the four types of organisational culture are high. It can be implied that on an overall, the respondents perceive the culture in their plantation companies to be conducive.

The correlation values between the variables are less than 0.85; hence, there is sufficient discriminant validity between the constructs. The KMO values for OCI, OCC, OCA and OCM were 0.602, 0.683, 0.500 and 0.708, respectively. The significant difference in the KMO value of OCA is due to the dropping of item 'we encourage and reward those who take risks' as a result of lack of convergence. Table 4 shows that the highest correlation for each item with at least one other item in the construct is between 0.30 and 0.90. Thus, all of the 8 items do correlate adequately in the construct. The KMO value was 0.875, which is considered to be good. Two factors were extracted which explained 63% of the total variation. In the first factor, there were six items (IV1, IV2, IV3, IV4, IV5 and IV8). These items are reflections of organisational-based innovativeness (OBI). Hence, this factor is labelled to as organisational-based innovativeness. In the second factor, there were two items (IV6 and IV7). These items are measures of leadership-based innovativeness. Hence, this factor is termed as leadership-based innovativeness (LBI). The mean scores for items in Factor 1 and Factor 2 were computed and saved as OBI and LBI, respectively.

Hypotheses Testing

Table 5 shows that for OCI, only TL and AL are significant predictors. The R-squared value for OCI is 0.369, which means that 37% of the variation in OCI can be explained by

CL, TL and AL, most of which are coming from TL and AL. For OCC, AL is the only significant predictor. The R-squared value for OCC is 0.316, which means that 32% of the variation in OCC is explained by CL, TL and AL, most of which is coming from AL. With respect to OCA, only CL and AL are significant predictors. The R-squared value for OCA is 0.308, which means that 31% of the variation in OCC can be explained by CL, TL and AL, most of which are coming from CL and AL. For OCM, only TL and AL are significant predictors. The R-squared value for OCM is 0.347, which means that 35% of the variation in OCC is explained by CL, TL and AL, most of which are coming

Demographic Factors	Category	Frequency	%
Position	Manager	155	74
	Group Manager	41	20
	Deputy/General Manager	14	6
Joined the organisation as	Trainee Assistant Manager	24	12
-	Assistant Manager	104	50
	Manager	82	38
Joined this organization (Year)	1971-1980	1	0.5
5	1981-1990	9	4
	1991-2000	73	36
	2001-2009	79	37
	After 2009	48	23
Gender	Male	210	100
	Female	Nil	-
Highest educational qualification	PhD	Nil	-
C 1	Master	12	6
	Degree	25	12
	Diploma	60	28
	Others	113	54
Age (Years)	25-30	6	3
	31-40	102	49
	41-50	79	38
	51-60	21	10
	61-70	2	0.1
Experience (Years)	Less than10	13	6
	11-15	54	26
	16-20	56	27
	More than 20	87	42
Number of people working under you	Less than 250	19	9
	251-500	82	39
	501-750	57	27
	751-1000	32	15
	Over 1000	20	10

Table 1. Demographic profile	s of respondents
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Table 2. Descriptive statistics and correlation between leadership styles

Variable	Descriptive statistics		Correla	Correlation		
	Mean	Std. Deviation	CL	TL	AL	
CL	3.2	0.5	1.000			
TL	3.4	0.5	0.840	1.000		
AL	3.2	0.4	0.794	0.769	1.000	

Table 3. Descriptive statistics and correlation between organisational culture types

Descriptive Statistics			Inter-ite	Inter-item correlation				
Variable	Mean	Std. Deviation	OCI	OCC	OCA	OCM		
OCI	3.2	0.5	1					
OCC	3.1	0.5	.626	1				
OCA	3.0	0.5	.623	.550	1			
OCM	3.1	0.5	.612	.502	.610	1		

Table 4. The inter-item correlation matrix for the items in innovativeness

Item	IV1	IV2	IV3	IV4	IV5	IV6	IV7	IV8
IV1	1							
IV 2	0.725	1						
IV 3	0.622	0.592	1					
IV 4	0.547	0.575	0.728	1				
IV 5	0.540	0.621	0.599	0.637	1			
IV 6	0.357	0.346	0.419	0.387	0.556	1		
IV 7	0.292	0.370	0.383	0.428	0.435	0.585	1	
IV 8	0.689	0.656	0.697	0.650	0.648	0.443	0.410	1

from TL and AL. Table 6 summarises theresults of the significant relationships between the leadership domain of CL and the organisational culture domain of OCA, leadership domain of TL and the organisational culture domains of OCI and OCM, and leadership domain of AL and all the dimensions of organisational culture domain. As such, H1 is partially accepted.

Table 7 shows that for OBI, only OCI, OCC and OCM are significant predictors. The R-squared value for OBI is 0.524, which means that 54% of the variation in OBI can be explained by OCI, OCC, OCA and OCM, most of which are coming from OCI, OCC and OCM. As for LBI, only OCI is the significant predictor.

Dependent variable	Independent Variable	В	Std. Error	t	Sig.	95% Confidence	Interval
•	•					Lower Bound	Upper Bound
OCI	Intercept	.885	.211	4.203	.000	.470	1.300
	CL	.226	.125	1.804	.073	021	.473
	TL	.236	.113	2.083	.038	.013	.459
	AL	.232	.107	2.159	.032	.020	.444
OCC	Intercept	1.056	.211	5.011	.000	.640	1.471
	CL	.065	.125	.516	.607	182	.311
	TL	.142	.113	1.252	.212	082	.365
	AL	.412	.107	3.837	.000	.200	.624
OCA	Intercept	.707	.242	2.923	.004	.230	1.185
	CL	.321	.144	2.228	.027	.037	.604
	TL	.135	.130	1.036	.301	122	.392
	AL	.244	.123	1.979	.049	.001	.488
OCM	Intercept	.776	.228	3.411	.001	.327	1.225
	CL	.167	.135	1.234	.219	100	.434
	TL	.301	.122	2.456	.015	.059	.542
	AL	.244	.116	2.103	.037	.015	.473

Table 6. Summary results of hypothesis 1

Leadership Style	Organisational Culture	p-value	Conclusion
CL →	OCI	0.073	There is a significant relationship between the leadership domain of CL and
CL 🗲	OCC	0.607	the organisational culture domain of OCA
CL 🗲	OCA	0.027	
CL 🗲	OCM	0.219	
TL 🗲	OCI	0.038	There are significant relationships between the leadership domain of TL and
TL 🗲	OCC	0.212	the organisational culture domains of OCI and OCM
TL 🗲	OCA	0.301	
TL 🗲	OCM	0.015	
AL 🗲	OCI	0.032	There are significant relationships between the leadership domain of AL and
AL 🗲	OCC	< 0.001	all the dimensions of organisational culture domain
AL 🗲	OCA	0.049	
AL →	OCM	0.037	

Table 7. Results of the relationship between organisational culture and organisational innovativeness

Dependent variable	Independent Variable	В	Std.	t	Sig.	95% Confidence	e Interval
			Error			Lower Bound	Upper Bound
OBI	Intercept	.728	.183	3.971	.000	.366	1.089
	OCI	.363	.074	4.909	.000	.217	.509
	OCC	.216	.069	3.126	.002	.080	.352
	OCA	.080	.064	1.251	.212	046	.205
	OCM	.191	.064	2.990	.003	.065	.317
LBI	Intercept	1.700	.255	6.667	.000	1.197	2.203
	OCI	.375	.103	3.640	.000	.172	.578
	OCC	.083	.096	.862	.390	107	.272
	OCA	033	.089	374	.709	208	.141
	OCM	.027	.089	.299	.766	149	.202

Table 8. Summary results of hypothesis 2

Organisational Culture	Organisational Innovativeness	p-value	Conclusion
OCI →	OBI	< 0.001	There are significant relationships between the organisational culture
OCI 🗲	LBI	< 0.001	domain of OCI and both domains of organisational innovativeness
OCC →	OBI	0.002	There is a significant relationship between the organisational culture
OCC →	LBI	0.390	domain of OCC and OBI domain of organisational innovativeness
OCA →	OBI	0.212	There is no significant relationship between the organisational culture
OCA →	LBI	0.709	domain of OCA and both the domains of organisational innovativeness
OCM →	OBI	0.003	There is a significant relationship between the organisational culture
OCM →	LBI	0.766	domain of OCM and OBI domain of organisational innovativeness

The R-squared value for LBI is 0.181, which implies that 18% of the variation in LBI can be explained by OCI, OCC, OCA and OCM, most of which is coming from OCI. Table 8 shows that some domains of organisational culture are significantly related to some domains of organisational innovativeness. Hence, H2 is partially supported by the data.

innovativeness and organisational culture in the Sri Lankan plantation sector. Prior studies have not attempted to provide a clear conclusion of the interrelationships, more so in the plantation context. Hence, this study has contributed to reducing the prevailing gap in the literature.

Table 9. Results of the relationships bet	etween leadership style and organisational innovativeness

Dependent variable	Independent Variable	В	Std. Error	t	Sig.	95% Confidence	e Interval
						Lower Bound	Upper Bound
OBI	Intercept	.276	.156	1.769	.078	032	.583
	CL	.244	.093	2.636	.009	.061	.427
	TL	.367	.084	4.383	.000	.202	.532
	AL	.332	.079	4.180	.000	.175	.489
LBI	Intercept	1.076	.243	4.424	.000	.596	1.555
	CL	.299	.144	2.068	.040	.014	.584
	TL	.138	.131	1.056	.292	120	.396
	AL	.192	.124	1.551	.122	052	.437

Table 10. Summary results of hypothesis 3

Leadership Style	Organisational Innovativeness	p-value	Conclusion
CL →	OBI	0.009	There is a significant relationship between the leadership domain of CL
CL 🗲	LBI	0.040	and both the domains of organisational innovativeness
TL 🗲	OBI	< 0.001	There is a significant relationship between the leadership domain of TL
TL 🗲	LBI	0.292	and the organisational innovativeness domain of OBI
AL 🗲	OBI	< 0.001	There is a significant relationship between the leadership domain of AL
AL 🗲	LBI	0.122	and the organisational innovativeness domain of OBI

Table 11. Summary results for hypothesis 4

Leadership Style	Organisational Culture	Organisational Innovativeness	p-value*	Conclusion
TL 🗲	OCI 🗲	OBI	0.011	The organisational culture domain of OCI significantly
		LBI	0.048	mediates the relationship between the leadership style
				domain of TL and both the organisational innovativeness
				domains
AL➔	OCI→	LBI	0.029	The organisational culture domain of OCI mediates the
				relationship between the leadership style domain of AL and
				the organisation innovativeness domain of LBI
				The organisational culture domain of OCC mediates the
AL 🗲	OCC →	OBI	0.028	relationship between the leadership style domain of AL and
				the organisational innovativeness domain of OBI

*Computed using Sobel's formula for mediating effect.

Table 9 shows that for OBI, all the three leadership styles (CL, TL and AL) are significant predictors. The results show that the higher the scores in CL, TL and AL, the higher are the scores in OBI. The R-squared value for OBI is 0.659, which means that 66% of the variation in OBI is explained by CL, TL and AL. For LBI, only CL is the significant predictor. The R-squared value for LBI is 0.235, which implies that 24% of the variation in LBI can be explained by CL, TL and AL, most of which is coming from CL. Table 10 illustrates that some of the domains of leadership style are significantly related to some domains of organisational culture. Hence, H3 is also partially supported by the data. The fourth hypothesis posits that organisational culture mediates the relationship between leadership style and innovativeness. In Table 11, the OCI and OCC domains of organisational culture significantly mediate the relationships between the leadership style domains of TL and AL only the domains of OBI. Hence, H4 is partially supported by the data.

Implications and Contributions

This study has achieved its objectives by investigating the relationships between leadership styles, organisational

Although this study is conducted in the one and a half century old plantation industry, the study outcomes are still relevant, looking at its diminishing contributions to the economy despite its continuing importance. A vital outcome of this study is that it explains the complexity of innovativeness in a sector which involves a range of factors and actors. The study results clearly provide a guide to understand, develop and implement strategies of organisational innovativeness through the most effective combination of leadership styles and organisational culture. More importantly, it highlights the importance of being innovative in the long run or face the negative consequences. For management scholars, it provides a framework in examining the interrelationships between the constructs which can be replicated or built upon in future studies.

Specifically, the first hypothesis emphasised on the importance of creating 'newness' in the plantation organisation and/or industry through the use of appropriate combination of leadership styles and organisational culture, as against the 'traditional ways of doing things' in order to sustain and prosper in the competitive environment. The findings are of paramount to estate managers due to the

structured learning they received at the commencement of their careers and the deeply rooted system, customs and practices within the estate environment. Even educated younger managers are exposed to the behavioural modelling which has been passed down from one generation of managers to another. Due to colonial influence, high power distance still prevails between the managers and the managed.

This study opens up the perspective of estate managers to view leadership from different spectrums. Visionary and enthusiastic transformational leaders, with an inherent ability, can motivate subordinates to display their ability to obtain high level of participation from employees whilst ensuring the widespread agreement about goals and clear strategy (Ogbonna and Harris, 2000). The same goes to authentic leaders in driving employee involvement. On the other hand, authentic and charismatic leaderships are required for adoptability of innovation. In addition, the results also partially supported the positive relationship between organisational culture and organisational innovativeness. This finding is consistent with Bain et al. (2001) and Ekvall and Ryhammar (1999). It shows that innovation, to some extent, depends on the culture of the plantation sector; to be precise, the degree of organisational support. Further organisational support comprising organisational encouragement of innovation, access to requisite resources, empowerment, the availability and the level of availability of resources and values may lead to actual improvement in innovation.

It is interesting to note that whilst consistency, mission and involvement have significant positive relationships with OBI, only involvement is significantly related to LBI. The results imply that in order to drive innovation, the plantation companies need to have a long term orientation, a clear strategy, be consistent and uniformed in their behaviours and encourage participation from employees by relying on coordination than hierarchy (Denison and Mishra, 1995; Denti, 2011; Ekvall and Ryhammar, 1999). Only adoptability has no relationship with either forms of innovativeness. The findings reaffirmed the fact that the Sri Lankan plantation companies have been focusing on its internal environment than responding to external demands. As a result, this has made the sector 'blind' to external opportunities, market conditions and customer needs. Even for innovation to take place, adoptability remains a challenge although the plantation companies are driven by authentic and charismatic leaders who are very much involved to make such innovation happening.

This again calls for a shift from the primary focus of conformity to challenging the status quo. Otherwise, managers will still be reluctant to adopt new practices with such deeply rooted system, customs and practices. A change with clear mission from the top, consistent message for change and a culture supportive of innovation through involvement of employees are thus paramount. To do so, leadership plays an important role in driving innovation. The findings suggest that the plantation sector needs charismatic leaders who can manage and try out new ideas. To do so, they must have the necessary power and qualities to drive the plantation organisation in the right direction (Jayakody, 2008; Paul *et al.*, 2006). At the same time, they must possess transformational and authentic leadership traits to inspire their employees to

perform beyond expectations. They must be transparent, ethical and open to suggestions to enhance the level of innovativeness in the plantation organisation (Kaiser *et al.*, 2008).

The perception of Sri Lankan managers that their leaders are good and effective in driving innovation (Bryne *et al.*, 2009; Elkins and Keller, 2003) is partially due to two reasons. First, the limited exposure of the estate managers outside the plantation sector make them believe that their leaders are good and effective within the current job scope where no comparison can be possibly made. Second, it is also possible that some leaders in the plantation sector display the qualities required for innovation to take place. However, due to the rigid structure, such qualities cannot be converted into actions and business results. If the leaders are serious about reviving the industry, then they must expose their managers to frequent trainings outside the sector and firms and encourage them to adopt a more relevant and current approach to leadership.

It becomes more interesting when the study looks at the interplay between all of the three variables. Organisational culture mediates some of the relationships between leadership styles and organizational innovativeness. This is to be expected, given the significant relationships between leadership styles and organisational culture, and between organisational culture and innovativeness.

The prevailing situation in the Sri Lankan plantation sector can be seen from its inception with the almost similar business model and management practices with little changes, their workforce (including managers, staff and minor workers) reside and work in the same plantation the strong set of principles, values and rituals. However, the findings provide some insights where high level of participation of team members through great reliance on coordination than hierarchy is important in driving organisational innovativeness. In this case, leaders are to exhibit more of authentic and transformational traits than of charismatic if a charismatic leader cannot drive changes. The common belief on the use of 'hierachy' for effective leadership in the plantation sector is therefore challenged where the power of 'involvement' or high level of participation of team members through greater reliance on coordination in the present day context of better informed and educated workforce as against the least informed and educated workforce in the past is paramount for innovation to happen in the sector.

Conclusion

This study has demonstrated that innovativeness is very important to the Sri Lankan plantation sector, which was once a front runner but is now lagging behind due to lack of innovativeness. The existing crops of the Sri Lankan estate sector has reached the optimal level in land productivity and cost structure. It is evident that the planters cannot carry plantations anymore in the same manner as before as the existing realised price level for current level of product innovation is on par with the optimal cost and productivity levels. It is timely that the estate sector changes its current traditional approach towards innovative approach if it wants to remain relevant in times to come. The negative impact of no significant change is the diminishing revenue to the country by means of foreign exchange earnings and taxes, whilst simultaneously demand funds from state coffers for the continuous existence of the sector. Further, this sector will have positive impact on small holding sectors which are coming up in importance. Leadership in the estate sector should understand this bitter truth and alter their leadership styles in order to create a conducive organisational culture which facilitates innovation in the plantation sector. It is hoped that the findings shed some lights on the measures to be taken. For researchers, it is hoped that more studies can be conducted to build upon the current work.

This study is not without limitations. In Sri Lanka, the plantation sector comprises two sub-sectors, namely the estate sector and the small holding sector. This study was carried out only on the estate sector since it ideally matches with all the variables of the research construct. Since the estate sector has been established over a long period of time, it is believed to possess a strong organisational culture. Further, due to colonial influence, leadership has a strong influence on the estate sector and its management decision making. Any change to status quo such as innovation can only be initiated from the top. The uniformity of the estate sector in terms of the system and management practices adopted also suggest its relevance to this research. However, the smallholding sector can be important as well which should be addressed in future research. Even though confidentiality was assured, there is a possibility of misreporting amongst the respondents due to unwarranted fear of repercussions. This is especially prevalent in the culture of Sri Lankans.

Related to this is that the responses were based on perceptions and beliefs, not on hard facts. Although this evaluation should provide a reasonably accurate indication on the evaluated criteria, future research can consider organisational data and interviews to complement the statistical analysis.

The focus of this study was to examine the effects of leadership types on innovativeness with organisational culture as a mediating variable. As such, it has not looked at the degree of innovativeness on business results which is important in order to measure the success of innovation as well as to suggest strategies that can help the plantation industry to revive. Finally, this study is limited to the context of plantation industry of Sri Lanka, and therefore, care must be taken in attempting to generalise the findings to other industries and countries. Replicating the study on other industries and countries in future research will ensure validity of the findings.

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