ABSTRACT

**Purpose:** This paper analyses the moderating effects of farm owner’s gender and business intention which could impact on the resource-capability-competitive advantage linkage in agribusiness. The study adopts the resource-based view in combination with dynamic capabilities.

**Design:** The sample of the consisted of the farm owners who have experience in commercial cultivation of minor export crops in Sri Lanka. A self-administered structured questionnaire was used to collect data.

**Findings:** Based on the data collected from 456 farm owners, results of the multiple regression analysis suggest farm owner’s business intention has moderating effects upon the relationship between resources, capabilities and competitive advantage. However, statistically significant moderation effect of farm owner’s gender on the relationship between resources, capabilities and farm’s competitive advantage was not reported.

**Research implications:** The result gives positive sign that gender is not a constraint factor to gain competitive advantage at firm level and psyche of the leaders regarding their business intention which can lead to enhance the link between resources, dynamic capabilities and competitive advantage.

**Originality:** The literature gap in competitive advantage literature by highlighting the potential roles of gender and business intention play in the resource-capability-competitive advantage interaction.
has been addressed. The results provide practical implications for policy makers, government and local communities with regard to selecting suitable resources and integrating them with proper capabilities for greater competitive advantage of the agribusiness sector.

Keywords: Agribusiness; competitive advantage; gendered; business intention; resource-based view; regular linear regression model.

1. INTRODUCTION

In line with the recent trends in the global agribusiness sector, which are more industrialised, competitive, technological and managerial intensive [1,2], competitive advantage of agribusiness has generated much interest in the academic literature. It earns distinct attention due to the significant contributions of the sector in terms of larger share to the total economy with respect of utilizing land, providing employment opportunities and enhancing economic growth [3,4]. Because of these trends and contributions, competitiveness of global agribusiness has raised concerns amongst economists and policy makers about the need for competitive advantage in the agribusiness sector of developing countries.

The resource-based view (RBV) is the principal theory of competitive advantage at firm (farm) level [5-8]. Bhuiyan [6] and Martinez [9] indicate that the resources and capabilities of a firm need to be scarce to the industry but relevant to the activities of the firm in order to establish competitive advantage. Therefore, firms should be heterogeneous with regard to their resources and capabilities.

Prior studies have highlighted the direct effect of resources and capabilities on competitive advantage at farm level in agribusiness [10,11,3,4]. Concerning the prior studies, there are some factors influencing the resource-capability-competitive advantage interaction namely gender [12,13] working experience of the owners or managers [14,15] and religiosity of owners [4].

As far as concerned, the studies available outside of the agribusiness context have investigated the influences of gender and business intention on resource-capability-competitive advantage collaboration with mixed results. Brandth [16] indicated the inequality between men and women in agribusiness with respect on labour division and decision-making power. However, this seems to be changing, where female workforces take the lead in numerous sectors and the agribusiness sector is of no exception. Further, the principal intention of owners or managers supported to strengthen performance in small businesses [17] and business intention driven by the beliefs of owners or managers can produce the desired outcomes of firms [18]. In addition, Apasingha [19] highlighted that the reason for engaging in business circuitously affects the success of agribusiness farms in Sri Lanka. Accordingly, examination on what aspects and the extent of gender and business intention in influencing business activities and competitive advantage is lacked. This study aims to contribute to filling this gap in the literature. We focus particularly on the specific research question; What specific roles do gender and business intention play in the resource-capability-competitive advantage interaction?

The study focused precisely on the minor export crops sector in Sri Lanka in order to address the literature gap. This study responds to the call by focusing on the minor export crops sector such as the cinnamon, clove and pepper farms due to their emerging contribution towards Sri Lankan agricultural exports and global market position [3,4]. Currently, for cinnamon Sri Lanka is the largest exporter. Further, pepper export records the fourth and clove export records the fifth in world export market. Because of the increasing demands for these spices by the food and medical industries, the government of Sri Lanka has set high export target to be achieved by 2025 from these crops. Minor export crop farms, is mostly recognised as family-owned businesses [19].

This study is important for four major reasons. In line with the recent trends in the global agribusiness sector, the prior studies on sources of competitive advantage focused only on resource-capability interaction. Understanding the role of gendered and business intention to select and integrate resources and capabilities to arrive at competitive advantage extends the implication of the RBV. Second, this study is also exclusive in directing attention on the farm
owners involved in cultivating minor export crops, which has received very little research attention to date. Thirdly, since business intention is related with psyche of the owner/manager, a better assessment of the influence of business intention on resources and capabilities will enable the farm owners to enhance the competitive position of their farms. Finally, since prior literature has highlighted inequality between men and women in agriculture [20], it is equally important to keep the specific dynamic of gender relations on family owned farms in terms of selecting, channeling and integrating of resources with dynamic capabilities to enhance the competitiveness of agribusiness farms.

The remainder of this paper is structured as follows. First, elaborate on the theoretical basis of this study by discussing the literature on gender, business intention and resource-based view, resulting in the formulation of hypotheses to be tested. This is followed by the research design employed. The results and consequently the implications are then presented.

2. LITERATURE REVIEW

2.1 Gendered Role

Farming is broadly identified as a male business [21] and most farm work is done by men, whereas women do most of the work inside the house. The modernisation of agriculture, which took place during the last century due to new agricultural technologies, women were involved in a large share of farming [16]. Further, rise of agricultural multifunctionality in the 1990s has changed this situation by providing farm women with the opportunity to integrate new economic activities into the family farms [22]. In line with that, the scope of this study, i.e., Minor export crop farms, is mostly recognised as family-owned businesses [19], whilst more than 70% of the production side of the industry are smallholders [23,24].

Concerning the prior studies, Inmyxai [13] proposed that business owner’s gender can affect competitive advantage in respecting problems solving, business opportunities seeking, business environment uncertainty positioning, creative ideas processing and business leadership. Danes [12] indicate that human resource management has a significant effect on financial performance for female than male owners. In line with that, Frink [25] emphasise that there are differences in the impact that gender diversity has on the ability of an organisation to utilise assets to generate income for the organisation. Swinney [26] also indicate that the gender of the owner has a significant effect on the performance of small businesses. Scholars have argued that gendered role is more likely to influence on firm performance, which is only a subsection of competitive advantage. As aptly described by Powell [27], whenever competitive advantage is present, greater performance is attained and whenever superior performance is achieved, competitive advantage exists. However, it is worth noting that empirical evidence on the moderating role of gender upon the relationship between resources, capabilities and competitive advantage is not sufficient. In line with the argument of Inmyxai [13], gender difference of farm owner could be an influencing factor when selecting suitable resources and integrating them with the proper capabilities in order to enhance competitive advantage of the agribusiness farms.

2.2 Business Intention

There is considerable interest to understand the factors that support resources [and capabilities] in order to contribute to the growth of business, especially small businesses [28]. Beaver [17] emphasise that performance in small businesses is strengthened by the principal intention of owners or managers. Accordingly, motivated business intention determined by the beliefs of owners or managers can produce the desired outcomes [18]. This argument is also supported by Apasingha [19] who found that the reason for engaging in business circuitously affects the success of volatile oil (cinnamon oil) production farms in Sri Lanka. Apasingha [19] categorise three main intentions for engaging in the business: (1) profitable business; (2) inherited business for the district; and (3) no other sources of income. However, the extant literature has yet to examine the influence of business intention on the competitiveness of farms.

Business intention is a way of expression about what owner or manager wants and will exist in the business [18]. It motivates the opportunities to take interactive actions. Morrison [28] found that business intention assists in the growth of small businesses. Further, Gray [18] found that the growth orientation of small businesses is influenced by the intention of owner or manager through collective abilities. However, Maki [29] caution that businesses should focus on important factors rather than on the psyche of the
owner. The pilot survey conducted in this study found that there were three main intentions for engaging the business amongst minor crops farm owners such as profitable business, inherited business for the district and no other income sources. These three intentions were also acknowledged by Apasingha [19].

The present study attempts to determine whether business intention provides significant support to the competitive advantage of the minor export crop farms in the form of managing resources and capabilities. This is because such psychological effect can help farm owners to regain a sense of managing resources and capabilities. The three intentions identified by Apasingha [19] are considered.

2.3 Resource-capability-competitive Advantage

At the firm level, competitive advantage defines as the ability to offer products and services in order to meet or exceed customer values currently offered by its rivals, substitutes and possible market entrants [9]. It characterizes the ability to conceive products or processes and optimise the entire value chain and in so doing, reduce the general costs. The sources determine the competitive advantage need to be identified specifically because with competitive advantage enables firms to raise the economic value of their products and make that model economically viable in enhancing export competitiveness. In assessing competitive advantage at firm level, Li [30] developed five dimensions to measure competitive advantage, namely price or cost, product innovation, product quality, dependable delivery, as well as time to market. The present study utilised these dimensions with appropriate modification based on the context [4,10]. Though product innovation is applied in prior studies, the present study used a dimension 'exploiting market opportunities' [31] as it is more practicable to the minor export crops.

Moving on to capability, the collection of routines that together with the implementation of input inflow confers upon the management of a firm a set of decision options for producing significant outputs refer as the capabilities [6]. The study employed four capabilities (organisational learning, relationship building, quality management and marketing capability) developed in prior studies [11,3,4] that significantly affect competitive advantage. With the intend of investigating the moderating effect of religiosity of farm owners on the relationships between capabilities and competitive advantage of minor export crop farms in Sri Lanka, the following hypotheses are put forth:

H3. Gender of farm owners moderates the relationship between capabilities and competitive advantages of minor export crop farms in Sri Lanka.

H4. There is a moderating effect of business intention of farm owners on the relationship between capabilities and competitive advantage of minor export crop farms in Sri Lanka.

3. RESEARCH DESIGN

Since this study represents an expansion of prior studies [11,3,4] with regard to the sources of competitive advantage of minor export crop farms using the RBV theory, the study employs a similar methodological approach but with the introduction of gender and business intention as the moderators.
3.1 Sample and Data

The sample of the study consisted of entities with experience in the commercial cultivation of three minor export crops, namely cinnamon, pepper and clove. These three crops have been selected over other minor crops on the basis of their contributions towards Sri Lankan agricultural exports as well as total minor agricultural exports [24]. Accordingly, minor export crops are cultivated in 14 districts in Sri Lanka [33]. The study identified the two highest growing districts of each the selected crop and the two highest growing District Secretarial Divisions (DSDs) of each of the two selected districts. Based on this premises, there are 26,413 farms in the target population. The proportionate stratified random sampling technique was employed to obtain the appropriate sample size, 456 farms, including 152 farms for each crop.

The sample contains with 268 (58.8 per cent) male and 188 (41.2 per cent) female farm owners. As far as business intentions of the farm owners are concerned, most of them hinge on the profitable nature of these crops, as well as inheriting them from the district. However, there are significant numbers of farm owners (25.9%) who engage in this sector because of their inability to find any other source of income. Similar trend can be seen from the cinnamon farmers, whilst the intentions of pepper and clove farmers are almost equally distributed. Table 1. shows the detail.

3.2 Variables and Measures

Based on established scales from the literature, the variables and measurement items of the study were constructed (Refer Table 2). The itemised rating scale (five-point Likert-scale) with end points of strongly disagree and strongly agree was used for latent variables and nominal scale items for gender and business intention.

3.3 Data Analysis Method

Testing the significant effect of the model after including the moderating variables, the regular linear regression model was used. This method is applicable when the moderating variable does not have any significant relationship with the dependent variable [34]. As such, the General Linear Model univariate analysis was employed to identify the links between competitive advantage (dependent variable), a set of quantitative, independent variables (resources and capabilities) and a qualitative variable (gender and business intention of farm owners). In addition, one-way ANOVA analysis was performed to test the mean differences of resources, capabilities and competitive advantage with the category of business intention and gender. The Statistical Package for Social Science software version 21.0 was utilised in this study.

4. FINDINGS

4.1 Assessment of Adequacy of Measurement

Factor analysis was applied for data reduction and purification of the items under each variable. In order to determine the appropriateness of factor analysis, the Kaiser–Meyer–Olkin (KMO) measure of sample adequacy was performed. Since there are latent variables which are measured using the itemised rating scale (five-point Likert scale), the principal axis factoring method was used [35]. Table 3. shows that the KMO measure of the constructs was greater than 0.70 and that the Bartlett’s test of sphericity showed a significant level (p < 0.001), indicating the appropriateness of factor analysis. Further, Cronbach’s Alpha values (> 0.70) were above v the suggested cut-off values, suggesting adequate reliability of the items. The results further show that the construct reliability and average variance extracted (AVE) values were

| Factors | Type of crop | Total |
|---------|--------------|-------|
| Gender: |             |       |
| Male    | Cinnamon: 97 (63.8%) Pepper: 88 (57.9%) Clove: 83 (54.6%) | 268 (58.8%) |
| Female  | Cinnamon: 55 (36.2%) Pepper: 64 (42.1%) Clove: 69 (45.4%) | 188 (41.2%) |
| Business Intention of Farm Owners: | | |
| Profitable business | Cinnamon: 60 (39.5%) Pepper: 57 (37.5%) Clove: 41 (27.0%) | 169 (37.1%) |
| Inherited business for district | Cinnamon: 54 (35.5%) Pepper: 57 (37.5%) Clove: 35 (23.0%) | 169 (37.1%) |
| No any other income source | Cinnamon: 41 (27.0%) Pepper: 58 (38.2%) Clove: 42 (27.6%) | 118 (25.9%) |
### Table 2. Operationalisation of variables

| Constructs | Variables | Measurement Items |
|------------|-----------|-------------------|
| Resources  | HA        | Experienced employees  
Employees come up with new ideas  
Trusted employees  
Dedicated towards their work  
Carrying out their own work without supervision  
Raw materials |
|            | PA        | Farming equipment  
Harvesting equipment  
Favourable geographical location  
Fertiliser developed by own farms  
Adequate money to devote to farm operational activities |
|            | FA        | Adequate money to buy capital equipment  
Obtain loans from banks  
Obtain loans from informal channels  
Obtain low interest rates for credit capital  
Obtain subsidies |
|            | IC        | Conducts workshops to improve quality  
Officer gives advice and guidance  
Meetings with the Divisional Agriculture Officer  
Support for identifying customers  
Share market information |
|            | CA        | Discuss production issues  
Shared credit facilities  
Assist to find new customers  
Share their business knowledge  
Avoid taking risk  
More careful with risk-taking |
|            | ENT       | Try to expand business  
Prefer to keep doing things the familiar way  
Believe in success without risk-taking |
| Capabilities| OLC       | Openly discuss mistakes  
Help each other to learn |
|            |           | Learn through activities  
Invest in new ideas from employees  
Commitment towards the goal(s) of farm  
Communicate with employees |
| Constructs | Variables | Measurement Items |
|------------|-----------|-------------------|
| RBC        | Communicate with customers | |
|            | Relationship with agricultural institutions | |
|            | Financial assistances with other farmers | |
|            | Relationship for identifying market opportunities | |
|            | Quality goal for product(s) | |
| QMC        | Comply with standards imposed | |
|            | Practice environmentally friendly operations | |
|            | Employees are aware about maintaining product quality | |
|            | Maintain quality raw material suppliers | |
|            | Knowledge of customers | |
| MC         | Knowledge of competitors | |
|            | Develop pricing programmes | |
|            | Discover strategies of other farmers | |
|            | Monitor price changes of competitors | |
| Competitive advantage (CA)
| Price      | Offer competitive price | |
|            | Offer price as low as other farmers | |
|            | Offer price lower than other farmers | |
| Quality    | Compete based on product quality | |
|            | Offer products that are reliable | |
|            | Offer products that are durable | |
|            | Offer quality products to customers | |
| Delivery   | Deliver customer orders on time | |
| Dependability | Provide dependable delivery | |
|            | Deliver the product needed by customers | |
|            | Deliver product to market quickly | |
| Time-to-Market | Time-to-market lower than industry average | |
|            | Product delivery time is lower than other farmers | |
| Exploiting Market Opportunities | Expand customer base than other farmers | |
|            | Expand supplier base than other farmers | |
|            | Access financial resources | |
|            | Obtain human resources than other farmers | |
|            | Access capital goods than other farmers | |

| Gender | Male, Female |
|--------|--------------|
| Business Intention | Profitable business Inherited business for the district No other income sources |

*Notes: HA, human assets; PA, physical assets; FA, financial assets; IC, institutional capital; CAc, collective actions; ENT, entrepreneurial identity; OLC, organisational learning capability; RBC, relationship building capability; QMC, quality management capability; MC, marketing capability; CA, competitive advantage*
above the suggested cut-off values, suggesting adequate construct validity of the items.

4.2 Mean Differences

Since the respondents represented different business intention and gender, it is interesting to examine the significant differences in resources, capabilities and competitive advantage with the category of business intention and gender. Table 4 and 5 show the results of one-way ANOVA analysis to test the mean differences of category of business intention and gender respectively.

As shown in Table 4, the p-values (Sig.) were less than 0.001, and hence it can be concluded that there are significant differences amongst the resources, capabilities and competitive advantage with regards to the category of business intention of the selected farm owners. Subsequently, the post hoc results indicated that the highest mean values for capabilities and competitive advantage were recorded for the profitable business intention of farm owners; whereas for the highest mean value for resources was recorded to the farm owners whose doing business as it is inherited business for district.

As shown in Table 5, the p-values were greater than 0.05, and hence it can be concluded that there are no significant differences amongst the resources, capabilities and competitive advantage with regards to gender of the selected farm owners.

4.3 GLM Univariate Analysis

Table 6 presents the results of the GLM univariate analysis. The p-values for resources and capabilities are less than 0.001, implying that resources and capabilities were significant predictors of competitive advantage of the minor export crop farms. However, the p-value for gender and business intention were higher than 0.05, which implies that gender and business intention of farm owners did not have a statistically significant association with competitive advantage. Hence, gender and business intention of farm owners can be included as a moderating variable on the relationships between resources, capabilities and competitive advantage of the minor export crop farms.

4.4 Linear Regression Model

The regular linear regression model is used to test for the significant effect of the model after splitting the data file based on gender and business intention. The regression results then compared with the coefficients and confidence interval for the levels of variable. Pollack [36] examined the moderating effect of social ties on the relationship between economic stress and depression using ordinary least squares regression model.

4.4.1 Testing moderating effect of farm owner gender

The regression result of competitive advantage upon resources (Table 7.) indicates that the slope for female (0.963) falls within the 95% confidence interval for male of 0.897 - 1.010. Further, the slope for male (0.954) falls within the 95% confidence interval for female of 0.903 – 1.024. The coefficients and confidence interval for male and female overlapped with each other. Thus, the gender of farm owners did not moderate the relationship between resources and competitive advantage of the minor export crop farms.

Table 3. Assessment of the measures

| Variable | KMO  | Bartlett’s test | AVE  | Construct reliability | Cronbach’s Alpha |
|----------|------|-----------------|------|-----------------------|------------------|
| HA       | 0.858| 0.000           | 0.65 | 0.943                 | .866             |
| PA       | 0.765| 0.000           | 0.60 | 0.930                 | .755             |
| FA       | 0.739| 0.000           | 0.62 | 0.931                 | .793             |
| IC       | 0.814| 0.000           | 0.68 | 0.937                 | .814             |
| CAc      | 0.875| 0.000           | 0.63 | 0.952                 | .793             |
| ENT      | 0.860| 0.000           | 0.68 | 0.952                 | .832             |
| OLC      | 0.826| 0.000           | 0.63 | 0.939                 | .808             |
| RBC      | 0.828| 0.000           | 0.60 | 0.930                 | .791             |
| QMC      | 0.836| 0.000           | 0.64 | 0.940                 | .814             |
| MC       | 0.877| 0.000           | 0.70 | 0.955                 | .830             |
| CAd      | 0.857| 0.000           | 0.61 | 0.978                 | .857             |
Table 4. One-way ANOVA result of business intention

|       | Sum of squares | df | Mean Square | F    | Sig.  |
|-------|----------------|----|-------------|------|-------|
| CAd   | Between Groups | 61.882 | 2 | 30.941 | 66.495 | .000 |
|       | Within Groups  | 210.787 | 453 | .465 |       |     |
|       | Total          | 272.669 | 455 |     |       |     |
| RES   | Between Groups | 41.168 | 2 | 20.584 | 34.917 | .000 |
|       | Within Groups  | 267.048 | 453 | .590 |       |     |
|       | Total          | 308.216 | 455 |     |       |     |
| CAP   | Between Groups | 33.119 | 2 | 16.560 | 31.228 | .000 |
|       | Within Groups  | 240.213 | 453 | .530 |       |     |
|       | Total          | 273.333 | 455 |     |       |     |

Table 5. One-way ANOVA result of gender

|       | Sum of squares | df | Mean Square | F    | Sig.  |
|-------|----------------|----|-------------|------|-------|
| CAd   | Between Groups | .273 | 1 | .273 | .455 | .500 |
|       | Within Groups  | 272.396 | 454 | .600 |       |     |
|       | Total          | 272.669 | 455 |     |       |     |
| RES   | Between Groups | .323 | 1 | .323 | .476 | .490 |
|       | Within Groups  | 307.893 | 454 | .678 |       |     |
|       | Total          | 308.216 | 455 |     |       |     |
| CAP   | Between Groups | .062 | 1 | .062 | .103 | .748 |
|       | Within Groups  | 273.270 | 454 | .602 |       |     |
|       | Total          | 273.333 | 455 |     |       |     |

Table 6. Results of general linear models Univariate analysis

| Source           | Type III sum of squares | df | Mean Square | F    | Sig.  |
|------------------|-------------------------|----|-------------|------|-------|
| Resources        | 23.328                  | 1  | 23.328      | 348.162 | .000 |
| Capabilities     | 15.595                  | 1  | 15.595      | 232.759 | .000 |
| Gender           | .171                    | 1  | .171        | 0.970 | .089 |
| Business Intention | 0.069                  | 2  | 0.035       | 0.589 | .555 |
| Error            | 25.468                  | 451 | .059        |       |     |
| Corrected Total  | 272.669                 | 455 |     |       |     |

A. R squared value = .889 (adjusted r squared value = .888) dependent variable: competitive advantage
crop farms. In other words, the relationship between resources and competitive advantage will not change with gender difference of farm owners. Since there was no significant moderating effect of gender of farm owners on the relationship between resources and competitive advantage of the minor export crop farms, H1 was not supported.

The regression result of competitive advantage upon capabilities (Table 8) indicates that the slope for female (0.972) falls within the 95% confidence interval for male of 0.891 - 1.018. Further, the slope for male (0.954) falls within the 95% confidence interval for female of 0.906 – 1.037. Thus, gender does not moderate the relationship between capabilities and minor export crops farm’s competitive advantage. Hence, H3 was not supported as well.

4.4.2 Testing moderating effect of farm owner business intention

The regression result (Table 9) indicates that the slope for profitable business (0.488) does not fall within the 95% confidence interval for inherited business for district of 0.296 – 0.477 or confidence interval for no other income source of 0.288 – 0.442. Further, the slope for profitable business was significantly higher than the slopes of the other two levels of business intentions. Thus, it can be concluded that business intention of farm owners moderates the relationship between resources and the competitive advantage.
advantage of the minor export crop farms. Hence, H2 was supported.

Similarly, the regression result (Table 10) indicates that the slope for profitable business (0.438) does not fall within the 95% confidence interval for inherited business for district of 0.219 – 0.397 or confidence interval for no other income source of 0.306 – 0.394. Further, the slope for profitable business was significantly higher than the slopes of the other two levels of business intention. Hence, H4 was supported.

In addition, we have also performed an individual-wise assessment of the moderating effect of business intention on each of the resources and capabilities identified and competitive advantage. It can be seen from Table 11. That at least one slope of intention does not fall within the 95% confidence interval. Further, the slope for profitable business intention is significantly higher than the slopes of the other two category of business intention with respect to the relationships between capabilities and competitive advantage. With respect to resource-competitive advantage relationship, moderating effect of intention of inherited business for district is significantly higher.

The moderating effect of the profitable business intention of farm owners on the relationship between quality management capability and competitive advantage was higher, followed by the marketing capability. Among six resources, the moderating effect of the intention of inherited

| Gender | Intention          | Model  | Unstandardized coefficients | Standardized coefficients | t      | Sig.  | 95.0% confidence interval for B | Lower bound | Upper bound |
|--------|-------------------|--------|------------------------------|---------------------------|--------|-------|---------------------------------|-------------|-------------|
| Male   | Profitable        | 1      | (Constant)                  | .045                      | .100   | .448  | .655                            | -.153       | .243        |
|        | Resources         |        |                              | .954                      | .029   | 33.27 | .000                            | .897        | 1.010       |
| Female | Inherited         | 1      | (Constant)                  | .069                      | .107   | .646  | .519                            | -.142       | .281        |
|        | Resources         |        |                              | .963                      | .031   | 31.50 | .000                            | .903        | 1.024       |
| No any | No other          | 1      | (Constant)                  | .142                      | .169   | 8.433 | .000                            | 1.092       | 1.760       |
|        | income source     |        |                              |                           |        |       |                                 |             |             |

A. dependent variable: competitive advantage
business of farm owners on the relationship between resources and competitive advantage was the highest for physical assets, whereas collective action recorded the second highest value.

5. DISCUSSION

The findings of the study confirm that business intention of farm owners is an important factor that effect the resource-capability-competitive advantage interaction. As such, the study has extended focus of the implication of the dynamic RBV and its integration of resources, capabilities and competitive advantage along with the moderation effect of the psyche of the farm owners. In contrast, the results indicated that there is no statistically significant moderation effect of farm owner’s gender on the relationship between resources, capabilities and farm’s competitive advantage. In line with that, this study contests the existing theory of the role of gendered [20], with regard to the development of agribusiness in general. On the basis of the findings, several theoretical and practical implications are made.

5.1 Theoretical Implications

In terms of the integration of resources, capabilities and competitive advantage, with the moderation effect of gendered role and business intention of owners in the agribusiness sector, this study is probably one of the first empirical investigations up till now. The important contribution of this research is that it has addressed the significant dearth of analysis on such influence in a comprehensive manner by supporting with a large sample size with the goodness of measures established. The study has made yet another important empirical contribution towards the agribusiness literature by investigating the impact of gendered role and business intention of farm owners on the resource-capability-competitive advantage interaction of the minor export crop farms.

The results have provided empirical evidence (Tables 7 and 8) that gendered role is not an influencing factor when it comes to the selection, channeling and integration of resources with dynamic capabilities to enhance the competitiveness of the minor export crop farms. Concerning the prior studies, they have pointed out that the inequality between men and women in agriculture in terms of ownership of capital, labour division and decision-making power [16, 37] and even today farm management is generally seen as male domain [20]. However, with the development of multifunctionality in the 1990s, the specific role of women is pushed into farm management positions [20]. The result is not in line with what is advocated by Danes [12], Frink [25], Inmyxai [13] and Swinney [26] that gender can affect competitive advantage with respect to problem solving, seeking business opportunities, processing creative ideas and business leadership. Since there is no significant moderating effect the study shed light on the important role of women, compared with men, in agribusiness with regard to selecting, channeling and integrating resources with dynamic capabilities to enhance the competitive advantage. This calls for further research as far as the moderating effects of gender is concerned.

Moreover, the results of the moderating analysis (Tables 9 and 10) showed that business intentions of farm owners significantly moderate the relationships between resources, capabilities and competitive advantage of the minor export crop farms. This is in line with the studies of Apasingha [19], Beaver [17] and Gray [18] which emphasise that competitive advantage of small

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Table 10. Result from moderating effect of business intention (capabilities and competitive advantage)

| Intention | Model | Unstandardized coefficients | Standardized coefficients | Sig. | 95.0% Confidence Interval for B |
|-----------|-------|-----------------------------|---------------------------|------|-----------------------------|
|           |       | B   | Std. error | Beta |      | Lower Bound | Upper Bound |
| Profitable | 1 (Constant) | 1.716 | .172 | 9.959 | .000 | 1.376 | 2.056 |
| business   | Capabilities | 1.438 | .051 | .532 | 8.126 | .000 | .316 | .520 |
| Inherited  | 1 (Constant) | 1.731 | .165 | 10.477 | .000 | 1.405 | 2.058 |
| business   | Capabilities | .310 | .051 | .428 | 8.030 | .000 | .219 | .397 |
| district   | No any other income source | 1 (Constant) | 1.575 | .203 | 7.758 | .000 | 1.173 | 1.977 |
|            | Capabilities | .307 | .061 | .407 | 7.600 | .000 | .306 | .394 |

A. dependent variable: competitive advantage
businesses is strengthened by principal intention of owners or managers. In addition, this finding refutes the argument of Maki [29] who emphasise that businesses should focus on important factors rather than on the psyche of the owner.

The results in Table 11 further indicate that the moderating effect of the profitable business intention of farm owners on the relationship between quality management capability and competitive advantage was high. Farm owners are required to set a clear quality goal for the yields produced, adopt the cultivation standards imposed by the government, employ environmentally-friendly approaches and ensure that their employees possess adequate awareness of product quality to maintain certain quality standards of crops. Hence, farm owners. With profitable business intention are able to influence their employees to safeguard the nature by practicing environmentally-friendly cultivation standards, as well as in maintaining the desired quality standards of their crops to fulfil their obligations to protect the consumers of their crops. Further, the minor export crops farm owners are required to ensure the certain quality standards of crops produced since there is increasing demands for spices by both food and medical industries.

The second highest moderating effect is recorded on the relationship between marketing capability and competitive advantage. This result highlights that business intention of farm owners involve more in marketing allows farms to take advantage of market sensing activity to obtain information on their customers and competitors, as well as skills in developing pricing strategies and monitoring the pricing tactics of their competitors.

The significant moderating effect is also recorded on the relationship between relationship building capability and competitive advantage. This result emphasises that profitable business intention farm owners are keen to form the relationships with their employees, other farms, customers, as well as with governmental and agricultural institutions compared with inherited business and no other income source intentions.

Wong [38] indicated that competitiveness of firms relies on knowledge which should be developed through organisational learning mechanism. However, the low beta score for moderating effect explains the indifferent reaction from the farm owners with different business intention. Since, learning is critical to the success of firms in this dynamic environment.

Table 11. Results on the moderating effect of business intention on item-wise resource and capabilities and competitive advantage

| Beta and confidence interval | Business intention category | HA  | PA  | FA  | IC  | CAc | ENT | OLC | RBC | QMC | MC  |
|-----------------------------|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Beta 95% Confidence         | No Other Income Business   | .127| .218| .107| .219| .231| .178| .175| .211| .118| .216|
|                            | Lower Bound                | .068| .101| .064| .111| .184| .107| .072| .121| .043| .148|
|                            | Upper Bound                | .102| .191| .092| .197| .211| .148| .164| .173| .089| .183|
| Beta 95% Confidence         | Inherited Business         | .314| .415| .291| .220| .407| .284| .321| .347| .327| .241|
|                            | Lower Bound                | .218| .237| .191| .107| .248| .198| .187| .227| .219| .084|
|                            | Upper Bound                | .304| .308| .248| .194| .324| .237| .281| .318| .284| .169|
| Beta 95% Confidence         | Profitable Business        | .213| .228| .189| .197| .224| .234| .344| .367| .518| .418|
|                            | Lower Bound                | .121| .137| .099| .107| .116| .165| .218| .221| .431| .287|
|                            | Upper Bound                | .172| .209| .146| .152| .194| .209| .304| .301| .487| .367|

HA – Huma assets, PA – Physical assets, FA – Financial assets, IC – Institutional capital, CAc – Collective actions, ENT – Entrepreneurial identity, OLC – Organizational learning capability, RBC – Relationship building capability, QMC – Quality management capability, MC – Marketing capability
in their quest to adapt and survive [39], the importance of organisational learning cannot be under-emphasised in order to address the common issues faced such as lack of knowledge, cost control and capital constraints [4,40].

The results in Table 11 also indicate that the moderating effect of the inherited business of farm owners on the relationship between physical assets and competitive advantage was high. Business intentions emphasise that owners need to love their business [17]. This result reflects that the farmers, who engaging in agribusiness as it is inherited in their living areas, express significant concern on environmental issues (utilising fertilisers and harvesting practices) and encourage environmentally-friendly agricultural practices can gain competitive advantage from physical assets.

The second highest moderating effect for resource is recorded on the relationship between collective action and competitive advantage. Inherited business owners are inclined to social interactions [19]. They are eager to share business knowledge, market information and credit facilities, which led to greater competitive advantage.

Further, the results in Table 11 indicate that the moderating effect of the business intention of farm owners on the relationship between human assets and competitive advantage relatively high. According to Talbot [41], employees (owners) who are experienced and dedicated to their work are able to control and deploy resources in order to generate high quality yield. This result reflects that inherited business intention shapes individual behaviour of farm owners and they show and maintain positive work values such as unbiased functionalities for payment, holiday, promotion and working conditions [42]. This is happening most probably they are living in these areas. Positive work values promoting through business intention, farm owners are able to retain experienced employees in turns gaining competitive advantage.

Although the beta values are relatively low on the moderating effect of business intention on the relationships between financial assets, institutional capital and entrepreneurial identity and competitive advantage, the effects were significant. The farms require to explore resources from the institutional environment such as government programmes [14] in terms of training and workshops, subsidises and advice. The owners’ business intention motives the opportunities to take interactive actions [18]. Thus, profitable and inherited business intentions farm owners can capitalise their institutional environment to obtain knowledge. Rosairo [43] and Ridha [44] emphasised that the farm owners viewed themselves as entrepreneurs who are characterised by risk taking, growth orientation and innovation. Taking a closer look, it is surprising reveal that beta value is relatively low on the moderating effect of business intention on the relationships between entrepreneurial identity and competitive advantage. This reflects that when farm owners are more concern on profit, they are concerning much on financial risk and are not more willing to bear uncertainties.

The findings draw some practical implications which are discussed in the following sub-section.

5.2 Practical Implications

Business intention is a way of expression of how the intentions of owners will exist in the business [18] and it motivates the opportunities to take interactive actions. Hence, psyche of the farm owners can significantly impact on the competitive advantage of the minor export crop farms in the forms of managing resources and capabilities. Tables 9 and 10 show that the highest coefficient value concentrated on profit-oriented business intention. This implies that the relationships between resources, capabilities and competitive advantage are stronger when the business intention of farm owners is profit-oriented.

This is not difficult to understand as the competitive position of the minor export crops depends on their production cost and quality. Profit orientation leads to the control of cost of production processes and improvement in product quality. It is obvious that high quality yields always fetch high price at the marketplace. As such, the high price charged with low cost generates a significant profit margin as well as competitive power for the farm owners. The findings show that profit-orientation is a much powerful force than the other two intentions of inheriting business from the district as well as no other sources of income.

However, when it comes to the farm owners who engage in this sector because of their inability to find any other sources of income (25.9%), the
consequences are severe. When the farmers were probed, they have indicated the possibility of disregarding the farming business once they obtain other sources of income. In fact, a similar trend is recorded on all the three types of crops. If they happen to disregard the business, this will lead to waste of resources and affect the supply of spices. Hence, the Divisional Agriculture Officer, who is in direct contact with farm owners, plays a critical role to emphasise on the importance of managing their operational costs, improving product quality, setting attractive price and achieving competitive position. Further, providing tax breaks on imported equipment and fertilisers may help to re-orient the business intentions of the owners. However, it is worthwhile to note that unnecessary pressure on making profits will encourage unhealthy competition as well as unethical activities. Hence, it is vital to make aware to the farm owners how to manage cost, control quality and set price based on the proper standards and guidelines, whilst at the same time enhancing their entrepreneurial orientation. Nevertheless, further study is necessary to be conducted in order to investigate how business intentions of farm owners influence the management and control of resources as well as decision-making process of the farm.

6. CONCLUSION AND FURTHER STUDIES

The study has contributed a better understanding on the role of gendered and business intention of farm owners in the resource-capability-competitive advantage interaction within the context of the three main minor export crops. Accordingly, the study has confirmed the importance of psyche of the farm owners regarding their business intentions which can lead to enhanced competitive advantage. As an important revenue generating sector in Sri Lanka, it is hoped that the study provides impetus for more research to be conducted in the future. Evolving a deeper understanding on the potential influence of gender and business intention of farm owners on various agribusiness activities can increase the likelihood of competitiveness, especially for farms dealing with the global challenges.

From the research perspective, the study provides the impetus for further studies to be carried to identify the impact of business intention on competitive advantage. Further research is also necessary to test the proposed research framework portraying the gender and business intention and resource-capability-competitive advantage interaction on other minor export crops in Sri Lanka.

Since there is no significant moderating effect of gender on resource-capability-competitive advantage interaction, it calls for further research as far as gender is concerned with regard to selecting, channeling and integrating resources with dynamic capabilities.

This study used quantitative approach to identify the moderating effect of gender and business intention. In more advance, explanatory study is required to examine to what extent does gender and business intention of farm owners influence their critical thinking and decision-making processes of their farms. In line with that, investigations on how educational level, income level or mental capacity of farm owners influence the relationships among resource-capability-competitive advantage are very much essential to consider.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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