URBAN CONSUMERS’ ATTITUDE TOWARDS ORGANIC FOOD IN SRI LANKA

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Abstract: This research investigation aims to examine the urban consumers’ attitude towards organic food, and the factors affecting for their attitude. A consumer survey consisting of a sample of 600 consumers was conducted, using a pre-tested questionnaire, in major cities of six main districts of Sri Lanka during November 2016 - May 2018. Data were analyzed using descriptive statistics, factor analysis, and multiple linear regression analysis. Results revealed that majority of the consumers were married females. Most of them were of 18-40 years of age category and were educated up to the GCE advanced level. The sample’s monthly income ranged from Sri Lankan Rupees 58000 – 85000. Although the majority of the consumers (75.2%) were aware of organic food, only 11.5% possessed a good knowledge about them. As per the mean analysis, the consumers had a positive attitude towards most aspects of organic food. According to factor analysis, four factors (environmental factors, quality factors, health factors, and marketing factors) were extracted as they are influenced to the consumer attitude for purchasing of organic foods. Results of multiple linear regression analysis revealed a positive relationship between consumers’ attitude and the extracted four factors which were based on the consumers’ attitude on purchasing of organic foods. Main problems faced by consumers in buying organic food were the high price, unavailability of organic food, lack of trust, and lack of market information on organic food. It can be concluded that by providing the necessary conditions such as arranging better marketing facilities with useful market information, a continuous supply of organic foods with reasonable price levels, and enhancing consumer knowledge, will motivate the consumers to purchase more organic food. As relatively low is known about consumers’ purchasing pattern of organic foods in Sri Lanka, findings of this study would be beneficial to the traders and policy makers to formulate effective strategies designed to marketing of organic foods in the country.

Keywords: Organic food, urban consumers, attitude, regression analysis, Sri Lanka
(JEL Classification: Q13)
associated with agrochemicals and consumers’ preference for safer food (Singh, 2003). Attention on organic food has grown remarkably as consumers and marketers react to popular media about health and environmental effects of pesticides and food safety. The rising popularity of organic food, which is a multi-billion-dollar global industry with accelerating growth, raises important questions of interest to governments is related to food safety. The question is whether consumers, planners, and marketers. Growing environmental awareness, in combination with concerns about safer foods, has led people to motivate organic agricultural practices. These cause an increasing interest in organic produce, which is perceived as less damaging to the environment and human health than conventionally-grown foods (Schifferstein and Ophuis, 1998; Williams and Hammit, 2001; Wijesinghe et al., 2011). The study also provided a significant increase in consumption of organic food, which has become a trend in present society. Most people tend to purchase organic food than conventional food items due to health and environmental benefits (Hapuarachchi, 2016). Organic products are considered to be higher in quality compared to conventionally-produced products.

The consumer attitude plays a significant role in the buying and consumption of organic food. Chisnall (1995) defined attitude as “a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which is related.” Granvikst, et al., (2004), pointed out that the relationship between environment and consumer attitude is strong and highly significant, which could be linked to correlation, while health consciousness also plays a vital role to shape consumer attitude and behavior (Magnusson et al., 2005). Consumers now move towards a healthy lifestyle to realize the benefits of organic food. People feel that the quality affects their health, and consuming organic food is a good option available to them (Pandey et al., 2019). More information about organic food market increases consumers’ knowledge and positively influences their attitude towards product’s availability (Gill and Soler, 2006; Aryal et al., 2009; Briz and Ward, 2009). Organic food is often related to a specific lifestyle that includes healthy eating, vegetarianism, and alternative medicine, religious, or societal considerations (Kulikovski and Agoli, 2011). Chisnall (1995) identified four categories of organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers. (1) organic and health-conscious consumers (2) organic and health-conscious consumers (3) organic and health-conscious consumers (4) organic and health-conscious consumers.

The overall attitude of all consumers for each statement was concluded that, health consciousness and environmental concern are influential factors in generating a positive attitude towards organic food by consumers. According to Weerasiri and Koththagoda (2017), consumer attitudes affect the consumption of organic products and factors such as health concern, consumer knowledge, and product quality have significant positive relationships with an attitude leaning in favor of organic products. Kodithuwakku (2018) also revealed that the perception of consumers is crucial in the purchase decision of organic food consumption as it determines their consumption and intention to buy organic food. Consumers who are conscious of health and food safety are more driven to buying organic food products from the organic food markets in Sri Lanka. However, the demand for organic food has not fulfilled the supply quantity of them. Atapattu and Wijesinghe (2018) indicated that, organic food users have positive attitude towards organic food compared with non-users; yet, despite the significant level of health hazards and environmental issues with the use of agrochemicals. Compare to developed countries, still the consumption of organic food is at a lower level in the country (Malkanthi et al. 2019). However, all these researches are micro-level research, based on one or two districts or covering few divisional secretariat divisions within a district with small samples. It is difficult to find literature of research covering the populous regions with larger samples of consumers.

Therefore, the primary research objective of this study is to find out the socio-economic factors of urban consumers, evaluating consumers’ knowledge about organic food, study the present purchase intention of organic food by consumers, and identify the factors affecting consumers’ attitude towards organic food, determine the relationship between those factors and consumers’ attitude towards organic food, and identify the problems related to buying organic food by the consumers.

RESEARCH METHOD

This study was conducted in the capital cities of six districts (Rathnapura, Colombo, Gampaha, Kandy, Kurunegala, and Galle) in Sri Lanka. Capital cities of these districts were purposefully selected for the study, as there is a potential for the presence of organic food markets and organic consumers. Four super markets were randomly selected from each city, and the target group was obtained by contacting customers who came out of the market, after buying goods. Questions were asked from customers who were willing to answer the questions. The data were collected at 24 super markets, 4 markets from each city and 25 consumers from each market. So that, 600 customers were randomly selected as the sample of the study, having 100 from each city. Data were collected in two stages: Firstly, data were collected using an online survey for the pilot study (Study One) on ten consumers in September 2016. And also, necessary corrections were made before the market survey. A market survey was conducted using the pre-tested questionnaire (Study Two) in those six cities from November 2016 – May 2017. In the questionnaire, questions were there to get information related to socio-economic characteristics and knowledge about organic food, their attitude towards organic food and issues and challenges in buying organic food. According to the literature, Chen & Lobo (2012) have conducted study about the consumer attitudes towards organic foods in urban China. They have reported that, product related, regulatory related and lifestyle related factors are directly or indirectly influence to the consumer attitudes or buying behaviour towards organic foods. Content of the above three factors are approximately equal to the content of environmental, quality, health and marketing factors used in this study. Data analysis was conducted using four statistical techniques. Descriptive statistics (frequency analysis, percentages) were used to evaluate the socio economic factors of consumers. Mean analysis was applied to assess the consumers’ attitude towards organic food using sixteen attitudinal statements with 5-point Likert scale. The total score and mean score for each statements were subsequently calculated using the following equations:

\[ \text{Total score} = 5xSA + 4xA + 3xU + 2xD + 1xSDA \]

Where,  
SA= Respondents expressing their attitude ‘Strongly Agree’ for the statements  
A= Respondents expressing their attitude ‘Agree’ for the statements  
U= Respondents expressing their attitude ‘Undecided’ for the statements  
D= Respondents expressing their attitude ‘Disagree’ for the statements  
SDA= Respondents expressing their attitude ‘Strongly Disagree’ for the statements

The overall attitude of all consumers for each statement was obtained based on the cut-off values. This method is similar to the analysis method used by Ruedas (2012) to measure the future value of organic food. The factor analysis is used to extract the factors affecting consumers’ attitudes on organic food. Finally, the impact of environmental, quality, health and marketing factors for the consumer attitude was analyzed by multiple linear regression. Data analysis utilized the SPSS-21 Statistical Package.

RESULTS AND DISCUSSION

Socio economic characteristics of consumers

Important socio economic characteristics of the consumers, i.e., gender, age, marital status, education level, and the total monthly income of them were identified and studied within the real situations. Table 1 presents the relevant results.
In order to assess the level of knowledge on organic food, consumers were asked to mark their response under four options as “I don’t know about organic food”, “I have little knowledge about organic food”, “I have certain knowledge about organic food” and “I have good knowledge of organic food”. Table 2 presents their responses.

### Table 1: Socio economic characteristics of consumers (n=600)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>282</td>
<td>47.0</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>318</td>
<td>53.0</td>
</tr>
<tr>
<td>Age</td>
<td>18-40 Years</td>
<td>295</td>
<td>49.2</td>
</tr>
<tr>
<td></td>
<td>41-60 Years</td>
<td>272</td>
<td>45.3</td>
</tr>
<tr>
<td></td>
<td>&gt; 60 Years</td>
<td>33</td>
<td>0.5</td>
</tr>
<tr>
<td>Married</td>
<td>Married</td>
<td>471</td>
<td>79.0</td>
</tr>
<tr>
<td></td>
<td>Unmarried</td>
<td>122</td>
<td>21.0</td>
</tr>
<tr>
<td>Educational level</td>
<td>Diploma</td>
<td>59</td>
<td>09.8</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
<td>212</td>
<td>35.3</td>
</tr>
<tr>
<td></td>
<td>Postgraduate</td>
<td>37</td>
<td>06.2</td>
</tr>
<tr>
<td></td>
<td>Less than 23000</td>
<td>15</td>
<td>02.5</td>
</tr>
<tr>
<td></td>
<td>23000-40000</td>
<td>135</td>
<td>22.5</td>
</tr>
<tr>
<td>Monthly total income (LKR)</td>
<td>40001-58000</td>
<td>102</td>
<td>17.0</td>
</tr>
<tr>
<td></td>
<td>58001-85000</td>
<td>176</td>
<td>29.3</td>
</tr>
<tr>
<td></td>
<td>85001-162000</td>
<td>136</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td>more than 162000</td>
<td>36</td>
<td>06.0</td>
</tr>
</tbody>
</table>

### Table 2: Consumers’ level of knowledge on organic foods (n=600)

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t know about organic food</td>
<td>12</td>
<td>02.0</td>
</tr>
<tr>
<td>I have little knowledge about organic food</td>
<td>19</td>
<td>03.2</td>
</tr>
<tr>
<td>I have certain knowledge about organic food</td>
<td>451</td>
<td>75.2</td>
</tr>
<tr>
<td>I have good knowledge about organic food</td>
<td>118</td>
<td>19.6</td>
</tr>
</tbody>
</table>

### Table 3: Purchasing pattern of organic food by consumers (n=600)

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever purchased organic foods?</td>
<td>534</td>
<td>89.0</td>
</tr>
<tr>
<td>No</td>
<td>42</td>
<td>07.0</td>
</tr>
<tr>
<td>Not responded</td>
<td>24</td>
<td>04.0</td>
</tr>
<tr>
<td>For how long have you been purchasing?</td>
<td>56</td>
<td>09.3</td>
</tr>
<tr>
<td>For a few months</td>
<td>96</td>
<td>16.0</td>
</tr>
<tr>
<td>Less than a year</td>
<td>126</td>
<td>21.3</td>
</tr>
<tr>
<td>Less than 2 years</td>
<td>135</td>
<td>23.3</td>
</tr>
<tr>
<td>More than 3 years</td>
<td>121</td>
<td>22.7</td>
</tr>
<tr>
<td>Do you purchase continuously or rarely?</td>
<td>126</td>
<td>21.0</td>
</tr>
<tr>
<td>Rarely</td>
<td>408</td>
<td>68.0</td>
</tr>
<tr>
<td>Do you like to purchase organic food in the future?</td>
<td>554</td>
<td>92.7</td>
</tr>
<tr>
<td>No</td>
<td>100</td>
<td>17.3</td>
</tr>
<tr>
<td>Not responded</td>
<td>014</td>
<td>02.3</td>
</tr>
</tbody>
</table>

As per Table 1, majority of the consumers was females (53.3%), primarily within the age category of 18-40 years (49.2%). Also, most of them were married (79.0%) and have received education up to GCE Advance level or 13 years of education (39.5%). Monthly income of the majority was in between Sri Lankan Rupees 58000-85000 (approximately US dollars 323 – 473). It is clear that they were young to middle aged people with comparatively better level of education and also in the category of a higher level of monthly income. In Sri Lankan households, women do shopping and household purchases than men. Wijesinghe et al. (2019) reported a similar socio economic profile in their study on constructing a household profile with the likelihood of purchasing organically grown produces. Vasukovic (2016) reported that, organic buyers tend to be younger and higher educated people than those who do not buy them. Similarly, below 40 years age group consumers have higher trend to purchase organic foods in Sri Lanka. And also, findings of this study noticed that consumers having lower educational level (Primary Education or education up to grade 5 and GCE Ordinary level or education up to grade 10, tend to lower consumption of organic foods.

Consumers’ knowledge on organic food

According to Table 3, a majority (89%) has purchased organic food and also 25.3% of them have been purchasing organic food since 2-3 years. However, many (68%) have been purchasing organic food rarely due to some existing constraints. Furthermore, discussions with the consumers indicated that, most of them prefer to buy organic food in the future, when they are available often and at a lesser price.

Consumers’ attitude towards organic foods

As per Table 4, out of the 16 statements, consumers agreed with 11 statements and were neutral for 05 statements. These 11 statements were identified as the factors which are highly influenced the consumers attitude when purchasing of organic foods. It is evident that consumers have a clear idea of organic food. According to the results, consumers agreed with the statements regarding quality factors (statements 01, 02, 03, and 04) of organic food. Also, most consumers agreed with the statements (05, 06, and 07) relating to health factors. Therefore, health-related factors and quality factors of organic food have significant impacts on consumers’ attitude. Consumers also perceived organic food as good for the environment (statements 08 and 09), thereby agreeing with the findings of Kodithuwakku (2018), which stated that consumers severely consider organic food is for healthier consumption, and safety is a significant factor that influences consumer attitude. Findings also denote consumers’ willingness to buy organic food, because of environment friendliness. Karunadasa and Weerasinghe (2017) indicated that health consciousness, environmental consciousness, consumer knowledge, and personal norms positively affect the consumer attitude towards organic food. Apart from these factors, the availability of organic food in the future, when they are available often and at a lesser price.

### Table 4: Consumers’ attitude towards organic food (n=600)

<table>
<thead>
<tr>
<th>No. Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>DA</th>
<th>SDA</th>
<th>Total score</th>
<th>Mean score</th>
<th>Overall Attitude**</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Organic food has high nutrition</td>
<td>342</td>
<td>216</td>
<td>26</td>
<td>10</td>
<td>6</td>
<td>2678</td>
<td>4.46</td>
<td>A</td>
</tr>
<tr>
<td>02 Organic food has good taste</td>
<td>269</td>
<td>257</td>
<td>62</td>
<td>10</td>
<td>2</td>
<td>2581</td>
<td>4.30</td>
<td>A</td>
</tr>
<tr>
<td>03 Organic food has good smell</td>
<td>219</td>
<td>248</td>
<td>116</td>
<td>12</td>
<td>5</td>
<td>2464</td>
<td>4.11</td>
<td>A</td>
</tr>
<tr>
<td>04 Organic food has high quality</td>
<td>341</td>
<td>207</td>
<td>39</td>
<td>7</td>
<td>6</td>
<td>2670</td>
<td>4.45</td>
<td>A</td>
</tr>
<tr>
<td>05 Organic food have no harmful effects</td>
<td>256</td>
<td>232</td>
<td>105</td>
<td>18</td>
<td>9</td>
<td>2468</td>
<td>4.11</td>
<td>A</td>
</tr>
<tr>
<td>06 Organic food are good for health</td>
<td>338</td>
<td>232</td>
<td>22</td>
<td>04</td>
<td>04</td>
<td>2696</td>
<td>4.49</td>
<td>A</td>
</tr>
<tr>
<td>07 Organic food have no pesticide residues</td>
<td>203</td>
<td>242</td>
<td>115</td>
<td>21</td>
<td>18</td>
<td>2388</td>
<td>3.99</td>
<td>A</td>
</tr>
<tr>
<td>08 Organic food protect the environment</td>
<td>119</td>
<td>274</td>
<td>138</td>
<td>46</td>
<td>23</td>
<td>2220</td>
<td>3.70</td>
<td>A</td>
</tr>
<tr>
<td>09 Organic food are good for environment</td>
<td>323</td>
<td>237</td>
<td>29</td>
<td>6</td>
<td>41</td>
<td>2583</td>
<td>4.45</td>
<td>A</td>
</tr>
<tr>
<td>10 I trust organic labels</td>
<td>56</td>
<td>195</td>
<td>189</td>
<td>117</td>
<td>43</td>
<td>1904</td>
<td>3.17</td>
<td>U</td>
</tr>
<tr>
<td>11 I consider organic brand/s</td>
<td>71</td>
<td>188</td>
<td>177</td>
<td>121</td>
<td>43</td>
<td>1923</td>
<td>3.21</td>
<td>U</td>
</tr>
<tr>
<td>12 Organic labels mean high-quality food</td>
<td>63</td>
<td>188</td>
<td>213</td>
<td>98</td>
<td>36</td>
<td>1944</td>
<td>3.24</td>
<td>A</td>
</tr>
<tr>
<td>13 I buy only the organic food which have certifications</td>
<td>143</td>
<td>151</td>
<td>72</td>
<td>129</td>
<td>105</td>
<td>1898</td>
<td>3.16</td>
<td>U</td>
</tr>
<tr>
<td>14 I buy organic food whenever possible</td>
<td>290</td>
<td>242</td>
<td>42</td>
<td>17</td>
<td>43</td>
<td>2388</td>
<td>4.31</td>
<td>A</td>
</tr>
<tr>
<td>15 Organic food need to be easily accessible</td>
<td>243</td>
<td>256</td>
<td>71</td>
<td>22</td>
<td>8</td>
<td>2504</td>
<td>4.20</td>
<td>A</td>
</tr>
<tr>
<td>16 I buy organic food whenever I feel, I like it</td>
<td>128</td>
<td>232</td>
<td>140</td>
<td>83</td>
<td>17</td>
<td>2171</td>
<td>3.20</td>
<td>U</td>
</tr>
</tbody>
</table>

*cut-off values for different attitudinal levels, 1.00-1.49 = strongly disagree; 1.50-2.49 = disagree; 2.50-3.49 = undecided; 3.50-4.49 = agree and 4.50-5.00 = strongly agree

As per Table 4, apart from the satisfaction levels of consumers, the results show that consumers agreed with the statements regarding quality factors (statements 01, 02, 03, and 04) of organic food. Also, most consumers agreed with the statements (05, 06, and 07) relating to health factors. Therefore, health-related factors and quality factors of organic food have significant impacts on consumers’ attitude. Consumers also perceived organic food as good for the environment (statements 08 and 09), thereby agreeing with the findings of Kodithuwakku (2018), which stated that consumers severely consider organic food is for healthier consumption, and safety is a significant factor that influences consumer attitude. Findings also denote consumers’ willingness to buy organic food, because of environment friendliness. Karunadasa and Weerasinghe (2017) indicated that health consciousness, environmental consciousness, consumer knowledge, and personal norms positively affect the consumer attitude towards organic food. Apart from these factors, the availability of organic food in the future, when they are available often and at a lesser price.

Source: Consumer Survey, 2016-2018
Factors influencing consumers’ attitudes on organic food

Factor analysis was conducted to identify the factors influencing consumers’ attitude towards organic food. Before the study, KMO and Bartlett’s test was conducted to check the suitability of the data for factor analysis. Table 5 presents the result of the KMO and Bartlett’s test.

Table 5. KMO and Bartlett’s test

<table>
<thead>
<tr>
<th>Component</th>
<th>KMO Value</th>
<th>Bartlett’s Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</td>
<td>.798</td>
<td>.000</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>5872.706</td>
<td>.000</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

According to the KMO and Bartlett’s test, the KMO value is 0.798. This value is suitable for proceeding the factor analysis. Furthermore, the p-value is less than 0.05 in this Bartlett’s test, and hence, signifies the suitability of the data for factor analysis. Therefore, factor analysis was conducted, and Table 6 presents the results.

Table 6. Total variance explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Variance</th>
<th>Cumulative Variance</th>
<th>Total Variance</th>
<th>Cumulative Variance</th>
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</thead>
<tbody>
<tr>
<td>Initial Eigenvalues</td>
<td>Extraction Sums of Squared Loadings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2.365</td>
<td>14.779</td>
<td>44.032</td>
<td>2.365</td>
</tr>
<tr>
<td>3</td>
<td>1.753</td>
<td>10.958</td>
<td>54.990</td>
<td>1.753</td>
</tr>
<tr>
<td>4</td>
<td>1.010</td>
<td>6.315</td>
<td>61.306</td>
<td>1.010</td>
</tr>
<tr>
<td>5</td>
<td>.882</td>
<td>5.553</td>
<td>66.819</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>.868</td>
<td>5.426</td>
<td>72.244</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>.727</td>
<td>4.541</td>
<td>76.785</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.645</td>
<td>4.033</td>
<td>80.818</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>.616</td>
<td>3.849</td>
<td>84.667</td>
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</tr>
<tr>
<td>10</td>
<td>.583</td>
<td>3.644</td>
<td>88.311</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>.465</td>
<td>2.906</td>
<td>91.216</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>.401</td>
<td>2.507</td>
<td>93.723</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>.376</td>
<td>2.348</td>
<td>96.071</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>.353</td>
<td>2.209</td>
<td>98.280</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>.272</td>
<td>1.702</td>
<td>99.982</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>.003</td>
<td>.018</td>
<td>100.000</td>
<td></td>
</tr>
</tbody>
</table>

According to the total variance explained, it only considered the extracted sums of squared loading (Table 6). Here, the factor accounted for 29.253% of the variance, the second 14.779%, the third 10.958%, and the fourth 6.315% of the variance. All remaining factors are not significant.

Table 7. Component matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good for environment</td>
<td>.901</td>
<td>.133</td>
<td>.208</td>
<td></td>
</tr>
<tr>
<td>Provide the protection</td>
<td>.899</td>
<td>.131</td>
<td>.209</td>
<td></td>
</tr>
<tr>
<td>Buy organic food when easily accessible</td>
<td>.675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic food has no pesticides residues</td>
<td>.522</td>
<td>.459</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic food are more tasty</td>
<td>.166</td>
<td>.869</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic good have smell</td>
<td>.785</td>
<td>.198</td>
<td>.249</td>
<td></td>
</tr>
<tr>
<td>Organic food are highly nutritious</td>
<td>.151</td>
<td>.761</td>
<td>.301</td>
<td></td>
</tr>
<tr>
<td>Organic food have high quality</td>
<td>.146</td>
<td>.622</td>
<td>.428</td>
<td></td>
</tr>
<tr>
<td>Organic food have no harmful effects</td>
<td>.130</td>
<td>.783</td>
<td>.165</td>
<td></td>
</tr>
<tr>
<td>Organic food are good for health</td>
<td>.227</td>
<td>.420</td>
<td>.594</td>
<td></td>
</tr>
<tr>
<td>I buy organic food whenever available</td>
<td>.218</td>
<td>.254</td>
<td>.564</td>
<td>.109</td>
</tr>
<tr>
<td>I buy organic food whenever I like it</td>
<td>.221</td>
<td>.433</td>
<td>.231</td>
<td></td>
</tr>
<tr>
<td>I trust organic food labels</td>
<td>.117</td>
<td>.810</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic labels indicate high-quality food</td>
<td>-.234</td>
<td>.129</td>
<td>.490</td>
<td>.800</td>
</tr>
<tr>
<td>I consider organic food brand name</td>
<td>-.435</td>
<td>.105</td>
<td>-.131</td>
<td>.645</td>
</tr>
<tr>
<td>I buy organic food which only have certification</td>
<td>-.157</td>
<td>.174</td>
<td>.480</td>
<td></td>
</tr>
</tbody>
</table>

Rotated Component Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
<td>Good for environment</td>
<td>Protect the environment</td>
<td>Buy organic food when easily accessible</td>
<td>Organic food have no pesticides residues</td>
</tr>
<tr>
<td></td>
<td>.901</td>
<td>.899</td>
<td>.675</td>
<td>.522</td>
</tr>
<tr>
<td></td>
<td>.133</td>
<td>.131</td>
<td>.459</td>
<td>.459</td>
</tr>
<tr>
<td></td>
<td>.208</td>
<td>.209</td>
<td>.209</td>
<td>.209</td>
</tr>
</tbody>
</table>

Kaiser-Meyer-Olkin Measure of Sampling Adequacy. .798

Four factors were extracted according to the rotated component matrix as shown in Table 7. The first factor was named as environmental factors, and it describes 29.253% of the total variance. The second factor was named as quality factors, which describes 14.779% of the total variance. The third was the health factors that described 10.958% of the total variance, while the fourth factor was named as marketing factors, and it explained about 6.315% of the total variance.

Determination of the relationship between the extracted factors and urban consumers’ attitude towards organic food

Influence of the extracted factors on the consumers’ attitude towards organic food was measured using multiple linear regression analysis. The resultant factor scores (independent variable) were regressed against the dependent variable which are denoted as consumer attitude for purchasing of organic foods (means of attitude).

Hypotheses used in the study were as follows:

H01: There is no relationship between environmental factors and consumers’ attitude towards organic food
H02: There is no relationship between quality factors and consumers’ attitude towards organic food
H03: There is no relationship between health factors and consumers’ attitude towards organic food
H04: There is no relationship between marketing factors and consumers’ attitude towards organic food

Table 8. Results of multiple linear regression analysis (n=600)

<table>
<thead>
<tr>
<th>Beta coefficient t Sig.</th>
<th>Hypothesis H0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental</td>
<td>.229</td>
</tr>
<tr>
<td>Quality factors</td>
<td>.245</td>
</tr>
<tr>
<td>Health factors</td>
<td>.248</td>
</tr>
<tr>
<td>Marketing factors</td>
<td>.232</td>
</tr>
</tbody>
</table>

*adjusted R2 = 0.987, standard error=0.05440, significant at 95% confidence level

Table 8 presents the multiple linear regression model summary and over fit statistics. The results of multiple linear regression analysis provided supportive evidence to prove the factors affecting consumers’ attitude towards organic food. The adjusted R square value was 0.987, and p values of all variables were lower than 0.05 at 95% confidence level (significant), which meant that the null hypotheses were rejected. Therefore, environmental factors, quality factors, health factors, and marketing factors were significantly associated with consumers’ attitude towards organic foods. The results indicated positive relationships between consumers’ attitude and the above four factors. It further revealed that:

- For every unit increase in environmental factors, attitude is predicted to be 0.229 units higher.
- For every unit increase in quality factors, attitude is predicted to be 0.245 units higher.
- For every unit increase in health factors, attitude is predicted to be 0.248 units higher.
- For every unit increase in marketing factors, attitude is predicted to be 0.232 units higher.

Various other researchers have reported more or less similar findings. For instance, Bashaa et al. (2015) discovered that motivations behind consumers for buying organic food products are health and environment concerns, lifestyle, food product quality, and their subjective norms. Ramesh and Divya (2015) also reported that health, taste, and packaging are the factors influencing consumers to buy organic food products.

Constraints for buying organic food by the consumers

Finding of the constraints associated with buying organic food by the consumers is a timely requirement. Thus, constraints affecting the organic food purchasing by the consumers were studied in detail and presented in Table 9.

Table 9. Constraints in buying organic food (n=600)

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Frequency</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic foods are expensive</td>
<td>516</td>
<td>86%</td>
</tr>
<tr>
<td>Unavailability of organic foods in the market</td>
<td>492</td>
<td>82%</td>
</tr>
<tr>
<td>Discontinuous supply in the market</td>
<td>474</td>
<td>79%</td>
</tr>
<tr>
<td>Lack of trust about organic foods</td>
<td>438</td>
<td>73%</td>
</tr>
<tr>
<td>Lack of certification for organic foods</td>
<td>414</td>
<td>69%</td>
</tr>
<tr>
<td>Unavailability of market information about organic foods</td>
<td>384</td>
<td>64%</td>
</tr>
</tbody>
</table>

Source: Consumer Survey 2016-2018

*This is a multiple response question; one respondent can have more than one option. Therefore, the cumulative percentage could be higher than 100%.
are in the young to middle-aged categories and with families. While most consumers have a significant level of education, majority of them have a comparatively higher monthly income (the average household income per month was Rs. 62,237 in 2016 in Sri Lanka). At present, most middle- and high-income receiving people in the country, principally do their shopping in supermarkets. Based on the information gathered in discussion with consumers, especially educated women are more conscious about the food given to their children and family as they are important to avoid health problems.

Most of the consumers have a significant level of knowledge of organic food, while about one-fifth of them have good knowledge. As these consumers have a good education level, they are exposed to various sources of information such as the internet, newspapers, and television and receive the latest news on currently important information.

Gradual development in purchasing of organic food can be seen as per the purchasing pattern of organic food is concerned. The expansion of supermarket channels in main cities in the country during the last 3-4 years have provided access for organic food for the consumers, and at present, the demand exists for organic food by the educated, high-income earning category of the consumers.

Consumers have a positive attitude towards beneficial aspects of organic food such as food quality (taste, smell, quality, and nutrition) and the health-enhancing and environment protecting ability. However, they are not satisfied with the marketing aspects of organic products. Therefore, these areas need improvement to attract more consumers towards organic food.

As per the factor analysis, four factors, i.e., environmental factors, quality factors, health factors, and marketing factors of organic food are important directly and also indirectly for purchasing of organic food by Indian consumers. According to multiple linear regression analysis, those four factors are positively associated with consumers' attitude towards organic foods.

In focusing the problems associated with purchasing of organic food, more consumers towards organic food in order to improve the marketing of organic food in the country. Even though certain arrangements have been made regarding the selling of organic food in some markets, these facilities need to be utilized by maintaining a continuous supply of organic food at various quantities, considering the demands of different types of consumers, in an appropriate manner. It will be beneficial to mention useful information such as the nutrition composition, health benefits, and the method of preparation on the packet to facilitate consumers, and selling organic food at reasonable prices without charging higher rates.

Since the consumers have a positive attitude on organic food, demand for organic food will be increased in future. Organic food producers should be made them at the correct time without destroying the nutritional value and freshness, and certify the food items using accurate certification systems and labeling. These foods should be transported to the relevant markets in regular time duration at reasonable food.

The government should arrange many promotional programs such as exhibitions, advertising, and poster displays, highlighting the benefits of organic food products such as health and eco-friendly qualities to further encourage consumers towards purchasing organic food products. Programs for school children and their food based on organic food could be a better way to maintain the good health of the younger generation.

ACKNOWLEDGMENT

This research work was supported by the Ministry of Agriculture (MOA) and the Sri Lanka Council for Agricultural Policy Research (SLCARP) under Grant number NARP/16/ SUSL/AS/01. The author is indebted to all who helped to make the work successful.

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S H P Malkanthi


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WILLINGNESS TO PAY FOR LOCALLY PRODUCED ORGANIC FOODS BY URBAN CONSUMERS IN SRI LANKA

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Abstract: Organic food consumption is gradually increasing among Sri Lankan consumers due to an increased awareness on healthy food. Some consumers ready to pay more for organic food, but it varies according to many factors. Therefore, the main objective of this study was to evaluate the urban consumers’ willingness to pay (WTP) for organically produced food in Sri Lanka. The specific objectives of the research were to investigate the socio-economic factors, the level of awareness on organic food, the present situation of buying, and the level of additional price ready to pay and analyze the impact of socio-economic factors on consumers’ willingness to pay. The research was conducted in urban Sri Lanka, covering capital cities of six urban districts of the country; Colombo, Galle, Gampaha, Kandy, Kurunegala, and Rathnapura. Data were collected from November 2016 to May 2018, from 600 consumers, by selecting 100 consumers per city. Data analyses employed were a descriptive analysis and binary logistic regression. Results revealed that, the most of the consumers were females, married, and with a comparatively higher level of education and monthly income. Most consumers had a significant level of awareness about organic food. A lesser proportion of consumers (24%) buys organic food at present, while the majority (52.4%) was willing to pay an extra price. Out of these consumers, the highest percentage (29.3%) prefers to pay 26% to 50% premium prices. As per the results of logistic regression, age, gender, monthly income, and education were the deciding factors for consumers’ willingness to pay a premium price for organic food. Results of this research are helpful for the development of production and marketing strategies and awareness programs for urban consumers on local organic food products.

INTRODUCTION

Organic food can be described as the food that is grown, and stored or processed without using chemical fertilizers or harmful agrochemical such as pesticides, herbicides, growth hormones, and generic modification (Essoussi and Zahaf, 2008). According to the Food and Agriculture Organization (FAO) (2007), organic food should only use organic production methods and management practices which need to achieve sustainable productivity. Thus, it uses pest, weed, and disease control methods along with a different mixture of mutually dependent life forms, recycling plant and animal remains, water management practices, crop rotation and selection, and tillage and cultivation.

The use of organic food has increased rapidly, in developed as well as developing countries. The rising purchasing pattern causes for the increasing level of consumer awareness on food safety and health concerns. Many reasons are contributing to this organic food market trend. Most consumers believe that organic food can provide individual and social values for themselves and also their families. Health factor composed of environmental and animal welfare factors is one of the most significant reasons for choosing organic food. The rapid development in organic food markets has created high interest among consumers, researchers, and businessmen although it comprises a small percentage of the food market.

Organic food is becoming popular with creating a growing market segment for the consumers who are ready to pay a
premium price for them. The premium price is the extra cost charged on organic food over conventional food (Shafie and Rennie, 2012). Nonetheless, consumers prefer to pay an additional payment due to health concerns and other values of organic food. The purchasing decision of consumers often depends on different aspects such as knowledge, intention, and attitude. Knowledge on products and their advantages affects consumers’ WTP price. Consumers have knowledge of organic vegetables as their best choice, and only 10% of consumers favored organic rice as their best choice. The principle reasons for their preferences were health (75%), palatability (18%), and freshness and good appearance (7%).

In Sri Lankan context, the study on “consumer WTP for selected organic vegetables in Kandy district” has revealed that, most of the consumers are ready to pay a premium price of 11-20% (Radman 2005). According to a study in Iran on WTP for organically grown products, most consumers were ready to pay a premium price for organic products in different levels. While 55% willing to pay premium price between 5 to 24%, 10% were willing to pay higher than 35% for organic food than conventional food (Haghiou et al., 2013).

In London, most of the households were ready to pay premium prices for organic goods Griffith and Nesheim (2008), while in Spain, only real organic food consumers indicated a positive attitude on organic food and they were ready to pay a premium price for organic food (Gil, 2009). As per Rodriguez et al., (2007), in Argentina, a positive attitude exists on organic products, and consumers are willing to pay premium prices to acquire good quality products.

The study conducted by Aryan et al., (2009) reported that, 28% of the consumers considered that they were ready to pay up to 20% Premium price compared with conventional food. Furthermore, 13% of them were ready to pay premium price in between 20-50%. However, 59% of them were not ready to pay more than 10% premium price for conventional food. Aasidi et al., (2009) revealed that, most of consumers in Iran were not ready to pay a premium price above 20%. Furthermore, Milloco et al., (2002) recorded that, 35% of consumers in Denmark were willing to pay a premium price for organic food, 18% of them were not ready to pay for any kind of premium price.

According to Joyce et al., (2011), 89% of the consumers in Tanzania knew about of organic food. Most of them were with high income, older, and educated categories. The majority of them (83%) have noted a taste difference between conventional and organic foods. Also, the majority of them (87%) were ready to buy organic food, while 78% of them were willing to pay an extra price for organic food. Moreover, majority of them (86%) like to experience home delivery of organic food. Based on a research study, Muhammad et al., (2015) reported that consumers’ willingness to pay for organic food is affected by their socio economic factors like age, education, nationality, household size, and monthly income. Nationality is a new variable that influences consumers’ willingness to pay for organic food.

In Asian countries, the demand for organic food has grown by 15 to 20% per annum during the last decade (Helga and Lukas, 2009; Mohamed et al., 2014). According to research findings of Aryan et al., (2009), the majority of consumers (90%) in Kathmandu valley are aware of organic products, but awareness of consumers differs according to the diverse characteristics of consumers. The study also revealed that knowledge of consumers on organic vegetables as their best choice, and only 10% of consumers favored organic rice as their best choice. The principle reasons for their preferences were health (75%), palatability (18%), and freshness and good appearance (7%). The study of Gumber and Rana, (2017) in India reported that, consumer characteristics such as education and income level have positively influenced the WTP premium price for organic food products. According to Piyasin and Ariyawardana (2002), the majority of consumers consider price as a significant factor. Therefore, the price of organic food should be as much as competitive with conventional foods. Also, some consumers prefer to have organic food with suitable packaging.

The organic food market depends on consumer demand. The number of people who are ready to pay an extra price is gradually increasing. Accordingly, a consumer-oriented approach to understand the market is worth for organic food marketing. Hence, the broad objective of this study was to evaluate the consumers’ willingness to pay for organic food in urban Sri Lanka. The specific objectives were the understanding of the socio-economic characteristics of urban consumers, assessment of the level of consumer awareness on organic food, identification of consumers’ WTP premium price for organic, determination of the impact of socio-economic factors on consumers’ willingness to pay for organic food, and identifying the challenges associated with purchasing of organic food by the consumers.

**RESEARCH METHODOLOGY**

Research methodology is the process through which researchers want to conduct their research. It displays the way through which these researchers formulate their research problem and objective, plan to careful, systematic collect and analysis required data and present their result obtained during the study period. It helps to find solutions to a question or recognize a particular phenomenon correctly by going beyond personal experience, thought, feelings and opinion (Johnston 2010).

Accordingly, this study was carried out in capital cities of six districts (Rathnapura, Colombo, Gampaha, Kandy, Kurunegala, and Galle) of Sri Lanka. The main cities of these districts were selected purposively for the study due to their potential for the presence of organic markets and organic consumers. Four super markets were randomly selected from each city, and the target group was obtained from 25 customers came out from the super market after buying goods. Questionnaires were filled from the customers who were willing to participate in the survey. Data collection was done at 24 super markets (04 super markets from each city), and the sample size was 600 customers (100 from each city). Data were collected in two stages: First, via an online survey for the pilot study (Study one) using ten consumers in September 2016, and then, a consumer survey using the pre-tested questionnaire (Study two) in the selected six cities from November 2016 to May 2018. In the questionnaire, consumers were asked information related to socio-economic characteristics, awareness level related to organic food, and WTP differencing between traditional and organic food. WTP for organic food, and challenges in purchasing organic food. In data analysis, socio-economic characteristics, the level of awareness, information related to present situation of buying organic food, WTP for organic food, and challenges in purchasing organic food were analyzed using descriptive statistics (frequency analysis, percentages), while factors affecting consumers’ WTP premium price was measured using binary logistic regression analysis.

**RESULTS AND DISCUSSION**

Results of the study are presented in five sections. They are arranged as (1) socio-economic characteristics of consumers, (2) level of consumer awareness, (3) present situation of buying and (4) factors affecting for WTP for organic food, and (5) challenges faced by consumers when they purchase organic food at the market.

**Socio-economic characteristics of consumers**

Socio-economic characteristics of the target group reflect lots of information about them. Therefore, useful information related to the consumers’ gender, age, educational level, marital status, and monthly income were discussed to understand the socio-economic characteristics among organic food consumers. Table 2 provides the research findings.
Consumers’ awareness of organic food

Level of consumers’ awareness on organic food was identified according to the consumers’ point-of-view using four statements. Table 3 presents the results.

Table 3. Consumers’ awareness of organic food (n=600)

<table>
<thead>
<tr>
<th>Awareness level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am not aware of organic food</td>
<td>12</td>
<td>2.0</td>
</tr>
<tr>
<td>I have a little level of awareness about organic food</td>
<td>20</td>
<td>3.3</td>
</tr>
<tr>
<td>I have a moderate level of awareness about organic food</td>
<td>451</td>
<td>75.2</td>
</tr>
<tr>
<td>I have a high level of awareness about organic food</td>
<td>117</td>
<td>19.5</td>
</tr>
</tbody>
</table>

Source: Consumer survey 2016-2018

As per the results, while the majority of consumers (75.2%) had a significant level of awareness about organic food, about one-fifth of them (19.6%) had a good level of awareness. Out of the respondents, only 2.2% was unaware of organic food. As most people are educated, they can understand the general things prevalent in society. This finding corroborates with Bhatta et al. (2009), who has reported that most of the consumers knew about organic food.

Consumers’ present situation of buying organic food and WTP in future

According to Table 4, although a considerable number of consumers (24%) was buying organic food by that time, the majority was not buying them. Even among the buyers, only a small fraction (16%) purchase them regularly, while others buy occasionally. However, from the whole sample, a higher percentage (52.4%) was willing to pay for organic food in future, if they are really organic. Somsak and Bhut (2012), and Wahida et al. (2012) found similar results in their studies. According to Coulibaly et al. (2011), consumers in West Africa, Ghana, and Benin have agreed to pay a higher price for organic vegetables, while Aryal et al. (2009) reported that consumers are willing to pay additional prices for organic products if they are available.

Consumers’ WTP premium price for organic food

Identifying the premium price willing to pay by the consumers is critical for the producers and marketers. Willingness to pay the premium price depends upon the product and consumers’ socio-economic factors. Although the majority of consumers were willing to pay a premium price for organic food, the level of premium price varied. Therefore, consumers were inquired to understand their level of preference to pay a premium price, and results are presented in Table 5.

Table 4. Consumers’ present situation of buying and WTP for organic food in future

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present situation of buying (n=600)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>144</td>
<td>24.0</td>
</tr>
<tr>
<td>No</td>
<td>377</td>
<td>62.8</td>
</tr>
<tr>
<td>Not responded</td>
<td>79</td>
<td>13.2</td>
</tr>
<tr>
<td>Present frequency of buying (n=144)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time</td>
<td>23</td>
<td>16.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>59</td>
<td>41.0</td>
</tr>
<tr>
<td>Rarely</td>
<td>82</td>
<td>57.0</td>
</tr>
<tr>
<td>WTP in future (n=600)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>314</td>
<td>52.4</td>
</tr>
<tr>
<td>No</td>
<td>224</td>
<td>57.3</td>
</tr>
<tr>
<td>Not responded</td>
<td>62</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Source: Consumer survey 2016-2018

As per the results of Table 4, out of 314 consumers, a majority (36.8%) of consumers were willing to pay 26 to 50% of premium price. However, 28.4% (16.1+12.3) of the consumers were willing to pay more than 50% of the premium price for organic food, over conventional food. Also, 20.9% of consumers ready to pay 10 to 25% premium prices. In comparison, 13.9% of consumers did not ready to pay more than a 10% premium price for any organic food. This agrees with Aryal and Chaudhary (2009), who denoted that consumers’ WTP premium price for organic food based on the product and the consumer. According to Rodiger and Hamm (2010), although normal consumers pay more attention on the price of foods, other motivational factors also play a determining role for their readiness to pay for organic products.
their cost for the healthiness of their families if healthy foods are available.

According to the field observations, there was a high tendency of consumers in higher professions such as doctors, nurses, teachers, and lecturers to buy organic food at a higher price. In some situations, doctors tend to cultivate and promote organic products by facilitating farmers to market their products for consumers; in some cases, they are not considering the premium prices as well. Similar to these findings, Akgunor et al. (2007) stated that urban consumers’ are ready to consume organic food and spend premium prices, and the individuals with high income and education are buying organic products than the others.

Challenges in purchasing organic food by the consumers

Understanding the challenges against purchasing organic food is a critical, timely factor. Thus, challenges confronted by the consumers when purchasing organic food were studied in detail, and the findings are presented in Table 9.

Table 9. Challenges in buying organic food (n=600)

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Frequency</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic foods are costly</td>
<td>516</td>
<td>86</td>
</tr>
<tr>
<td>Most organic foods are not available in the market</td>
<td>492</td>
<td>82</td>
</tr>
<tr>
<td>Unavailability of continuous supply in the market</td>
<td>474</td>
<td>79</td>
</tr>
<tr>
<td>Difficult to trust about organic foods</td>
<td>438</td>
<td>73</td>
</tr>
<tr>
<td>The dearth of certification of organic foods</td>
<td>414</td>
<td>69</td>
</tr>
<tr>
<td>Lack of market information about organic foods</td>
<td>584</td>
<td>97</td>
</tr>
</tbody>
</table>

Source: Consumer Survey 2016-2018

*These are multiple response questions; one respondent can have more than one option. Therefore, the cumulative percentage could be higher than 100%.

According to Table 9, the main challenge of buying organic food was the high cost related with them. Unavailability and discontinuous supply of organic food products were also significant issues. Unavailability of organic food in the market leads to irregular purchase and consumption patterns, while the lack of a clear and direct market flow of organic food from farmlands to market places leads to an irregular supply. Furthermore, the trust in organic food, problems in certification, and lack of market information negatively affect consumer preference.

CONCLUSIONS

The socio-economic characteristics lead to conclude that young and middle-aged married women take the priority among potential consumers in urban areas for locally-produced organic food. While most consumers have a significant level of awareness of organic food, a certain percentage of them have a higher level of awareness.

At present, only a small proportion of consumers buy organic food, and a majority of them buy organic food only occasionally. However, most are ready to pay for organic food products in future. Regarding the premium price, while a majority of consumers are ready to pay ¼ - ½ additional payment for organic food, another significant amount of consumers are ready to pay more than ½ of additional payment for organically grown food since they consider it as an investment for their health. This is a favorable situation for the development of the organic food marketing of the country. Some markets have made arrangements to sell organic food. However, these facilities need to be formalized by maintaining officially, organically grown food by consumers is a critical, timely factor.

The government can arrange many awareness and promotional programs such as exhibitions, advertising, and poster displays, highlighting the benefits of organic food products by health and eco-friendly qualities, to further encourage consumers towards purchasing organic food products. Programs for school children and their food based on organic food will help to motivate consumers regarding the purchase of organic food in future.

ACKNOWLEDGMENT

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WILLINGNESS TO PAY FOR LOCALLY PRODUCED ORGANIC FOODS BY URBAN CONSUMERS IN SRI LANKA

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Abstract: In today’s rapidly changing world, there is an increased need for excellent strategic planning. A firm’s survival may indeed hinge on the firm’s planning process being exemplary. Various aspects of the strategic planning process are under review today as organizations wrestle to compete more effectively. This paper reveals and describes five emerging trends or tools being utilized today by firms to more effectively engage in strategic planning. Specifically, the emerging trends and tools to be discussed in this paper are as follows:
1) Assure vision and mission statements include desired characteristics
2) Perform SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis using AQCD (Actionable, Quantitative, Comparative, and Divisional) factors
3) Utilize varied sources to obtain AQCD information
4) Utilize QSPM (Quantitative Strategic Planning Matrix) analysis to determine the relative attractiveness of alternative strategies
5) Use excel-based software to facilitate and enhance the strategic planning process.

The purpose of this paper is to familiarize readers with basic new tools and techniques being used by organizations to effectively develop an improved strategic plan for the firm.

INTRODUCTION

Every day companies and organizations make strategic decisions regarding what markets to enter, what markets to avoid, which competitors to acquire, and which firms and products to avoid. A firm’s survival can hinge on these decisions being made correctly. Deciding what to produce and where, when, and how to compete is what leads to a sustainable competitive advantage. Even the best strategies must be implemented well through operational- or tactical-level activities like hiring and motivating employees, cutting costs, benchmarking, outsourcing, securing financing, and keeping facilities warm (or cool). Implementation activities are vitally important and must be monitored by strategists. However, effective strategy formulation, more so than operational tactics, are generally what lead to sustained competitive advantage. Strategic planning also consist of a series of concepts and tools when combined can yield positive results (Bryson, et al., 2018). Accordingly, this paper aims to enhance the process that firms utilize to formulate and ultimately decide upon particular strategies to implement.

To gain a sustainable competitive advantage, firms need

Keywords: vision-mission, strategic planning, AQCD approach, QSPM analysis, strategic planning software.
(JEL Classification: M21, O21)
to provide unique products and services. Uniqueness matters. For example, Apple’s computers, iPods, and iPhones all run on Apple’s unique operating system. To assure necessary “uniqueness,” firms must accept concessions in the strategy process to gain a sustainable competitive, as exemplified in the Apple example. All successful firms thus make trade-offs and tough decisions to establish uniqueness in developing, producing, and selling products and/or services.

This paper begins by discussing recent changes in how firms establish their vision and mission—items that represent the starting point for developing and nurturing a firm’s unique characteristics. Everything in strategy flows from a particular institution’s vision and mission, and all successful firms are different (unique) from rival firms in some key ways. A strategy is, in essence, a company’s game plan. Profit margins among firms in most industries are so slim that there is little room for error in the overall strategic plan. A strategic plan results from tough managerial choices among numerous good alternatives, and it signals commitment to specific markets, policies, procedures, and operations in lieu of other, “less desirable” courses of action. Strategic planning is all about gaining and maintaining competitive advantage, and this paper aims to enhance this process. Normally, a firm can sustain a competitive advantage for only a certain period because of rival firms imitating and undermining that advantage. Thus, it is not adequate simply to obtain competitive advantage; firms must strive to achieve sustained competitive advantage by doing the following (David et al., 2020, p. 10):

1. Continually adapting to changes in external trends and events and internal capabilities, competencies, and resources.
2. Effectively formulating, implementing, and evaluating strategies that capitalize on those factors.
3. Offering products that are unique and not easily duplicated by rivals.
4. Accepting trade-offs by deciding what not to do; no firm can be everything to everybody.
5. Use excel-based software to facilitate and enhance the strategic planning process.

**Trend 1: assure vision and mission statements include desired characteristics**

Vision and mission statements are not just words that look nice when framed or engraved; they provide a basis for strategy and action; they reveal the reason a business opens its doors every day, the reason salespersons sell, the reason customers buy, and the reason employees work. These statements are the foundation for the organization, the basis for customer loyalty. Recently, organizations are devising these statements to incorporate new characteristics and components, as revealed in this paper. Clear vision and mission statements enable strategists to lead the way as a firm strives to gain, sustain, and grow its customer base and competitive advantages (Nábrádi et al., 2018).

For many corporations, profit rather than vision or mission is the primary motivator, but profit alone is not enough to motivate people. Profit is perceived negatively by some stakeholders of some firms. For example, employees may see profit as something that they earn and management uses and even gives away to shareholders. Other research indicates focusing on a customer perspective is advantageous (David et al., 2016). Although this perception is disturbing to management, it clearly indicates that both profit and vision/mission are needed to motivate a workforce effectively (David et al., 2014).

**Vision Statements**

It is especially important for managers and executives in any firm to agree on the basic vision the organization strives to achieve in the long term. A vision statement should answer the basic question, “What do we want to become?” A clear vision provides the foundation for developing a comprehensive mission statement. Many organizations have both a vision and mission statement, but the vision statement should be established first and foremost.

Many organizations today develop a vision statement that answers this question “What do we want to become?” Developing a vision statement is often considered the first step in strategic planning, preceding even development of a mission statement. Many vision statements are single sentences. However, a vision statement should reveal the type of business the firm engages. For example, a vision that says, “to become the best retailing firm in the United States,” is too broad because that firm could be selling anything from apples (A) to zebras (Z). Although typically a single sentence, vision statements need to do more than identify the product or service a firm offers; vision statements should be written from a customer perspective. Ideally every organization wants its employees and customers to align their actions with the firm’s vision. To fulfill this need, an excellent vision statement describes a desired future state. Being futuristic enables vision statements to be used to facilitate organizational change. The statement needs to be double but challenging.

Firms in every industry are developing vision statements that exhibit the following five characteristics; these five attributes can be used as guidelines for writing or evaluating vision statements. Any vision statement that scores a 5 out of 5 on these characteristics is exemplary. Let’s call this vision assessment technique “The 5 out of 5 Test.” When employees and managers together shape or fashion a vision statement a firm, the resultant document can reflect the personal visions that managers and employees have in their hearts and minds about their own futures. Shared vision creates a commonality of interests that can lift workers out of the monotony of daily work and put them into a new world of opportunity, challenge, and belongingness. The motivation, dedication, and commitment associated with shared vision is an immense potential benefit for any firm or organization (David, David, David, 2020, p. 47).

1. Clear: reveals type of industry and what firm strives to become
2. Futuristic: reveals what the firm strives to become or accomplish within 5 years
3. Concise: one sentence in length
4. Comparatively unique: one out of five test
5. Inspiring: motivates to readers to support the firm

There is no one best vision statement for a particular company in a given industry, but the 5 out of 5 test can be used to both develop and evaluate vision statements. Three hypothetical, exemplary vision statements that meet the 5 out of 5 test are provided below:

**Dr Pepper Snapple**: to be the best beverage business globally; our brands are synonymous with refreshment, fun, and flavour today and tomorrow.

**IBM**: to be the world’s most successful information technology company focused on helping customers apply technology to solve their problems now and in the future.

**Hilton Worldwide**: to fill the Earth with the light and warmth of hospitality by delivering exceptional experiences—every hotel and guest for all time.

**Mission Statements**

A mission statement is an “enduring statement of purpose that distinguishes one business from other similar firms. A mission statement identifies the scope of a firm’s operations in product and market terms.” It addresses the basic question that faces all strategists: “What is our business?” Developing a mission statement necessitates strategists pondering the nature and scope of present operations and to assess the potential attractiveness of future strategic positioning. Mission statements function as a constant reminder to its employees of what the organization exists and what the founders envisioned when they put their money and viability at risk to breathe life into an idea.

A mission statement is sometimes called a creed statement, a statement of purpose, a statement of philosophy, a statement of beliefs, a statement of business principles, or the raison d’être of a business. Mission statements have a reason for existence, even if strategists have not consciously transformed this reason into writing. Strategists must not spend most of every day on administrative and tactical concerns; nor should they rush quickly to establish objectives and implement strategies before development of a vision and mission statement. Undue haste is so widespread that many corporations, organizations, and small businesses globally have not yet developed a formal vision or mission statement.

A mission statement needs to be broad in scope for at least two major reasons. First, a quality mission statement allows for the development of a range of feasible alternative objectives and strategies without curtailing management creativity. A second reason that mission statements do not exclude any strategy alternatives could be dysfunctional. Apple’s mission statement, for example, should not open the possibility for diversification into nursing homes—or Ferrari’s. Additionally, a mission statement needs to be broad to reconcile differences effectively among, and appeal to, an organization’s diverse stakeholders, the individuals and groups who have a special stake or claim on the company. In essence, numbers should not be included in a mission statement.

An effective mission statement should comprise less than one hundred words. The statement should arouse positive thoughts in the imaginations of all employees and guests for all time. Mission statements should be durable, enduring, but subject to be changed at any time depending on changes anywhere in the integrative model of strategic management. An effective mission statement generates the impression that a firm is on the right track and worthy of investment from all stakeholders. A mission statement should include nine components (customers, products or services, markets, technology, concern for survival, growth/presence/size, profit, local/global, distinctive competence, concern for public image, concern for employees).

Well-managed companies today develop and utilize mission statements that include the following ten characteristics to help insure the firm has an excellent foundation strategic planning:

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**Emerging Trends in Strategic Planning**

**Fred R. David, Forest R. David, Tünde Zsó Kovács, Andris Nábrádi**

Trend 2: perform swot analysis using aqcd factors

A recent journal article reveals that all external and internal SWOT factors need to meet AQCD criteria to the extent possible (David, Creek, & David, 2020). The purpose of external and internal assessments is to develop a finite list of opportunities that could benefit a firm, threats that should be avoided or mitigated, strengths that need to be capitalized on, and weaknesses that need to be improved upon (Capps III & Glissmeyer, 2012). As the term finite suggests, the external and internal assessments do not result in an exhaustive list of factors that could influence the business. For this reason each SWOT factor should be specific and useful, which the AQCD test aims to assure. Normally ten opportunities, ten threats, ten strengths, and ten weaknesses comprise the foundational framework, in a SWOT analysis (Kearns, 1992).

It is important to note that the AQCD test aims to assure. Normally ten opportunities, ten threats, ten strengths, and ten weaknesses comprise the foundational framework, in a SWOT analysis (Kearns, 1992).

The aqcd test

In a SWOT analysis, the term “actionable” refers to the need for each external and internal factor to be meaningful and useful in capitalizing on opportunities that could influence the business. Actionable factors should be specific and within the control of management (Conan & Romen, 2009). Reasonable factors could be “the firm’s current ratio is 2.25” is not actionable because it gives no insight on what to do about the issue.

Quantitative

The importance of objective strategic planning has long been advocated in management literature (e.g., David, 1986; Tavana and Banerjee, 1995). In a SWOT analysis, the term “quantitative” refers to the need for each external and internal factor to include, ratios, currencies, and numbers to the extent possible. Quantification is essential so that quantitative strategies can assess the magnitude of opportunities and threats and take appropriate actions. For example, rather than saying “Marketing is moving rapidly to social media,” strategies need to conduct research and find, for example, that spend on online advertising globally is rising 13 percent annually and represents about 48 percent of total advertising spending in the USA. A key reason why strategies should be formulated and implemented based on specific factors is that people tend to be more specific if the factors are comprehensive.

Comparative

In a SWOT analysis, the term “comparative” refers to the need for external and internal factors to reveal changes over time or versus rival firms or compared to industry averages. Otherwise it is difficult to put any fact or number in perspective. Thus, factors to be included in a SWOT analysis should be garnered in comparative terms, so managers can more effectively use the information in the matching process to generate feasible alternative strategies. Comparative factors can help to identify distinct competencies (Kumar, Massie, & Dumonceaux, 2006) or reveal the most appropriate locations to source and market products (Kogut, 1986). Vagueness is harmful in factor generation because billions of dollars could ultimately hinge on the strategic decisions that the factors provide a basis for making.

Divisional

In a SWOT analysis, the term “divisional” relates to the firm’s profit centers that could be for example, by product or regional. Monitoring divisional factors allows for relative terms, rather than whole firm terms, to be incorporated. Comparative factors to generate feasible alternative strategies. Comparative factors can help to identify distinctive competencies (Kumar, Massie, & Dumonceaux, 2006) or reveal the most appropriate locations to source and market products (Kogut, 1986). Vagueness is harmful in factor generation because billions of dollars could ultimately hinge on the strategic decisions that the factors provide a basis for making.

Purposes

Emerging Trends in Strategic Planning

- IBSWorld—Provides online USA Industry Reports (NAICS), U.S. Industry iExpert Summaries, and U.S. Business Environment Profiles. A global version of IBIS is also available.
- Lexis-Nexis Academic—Provides online access to newspaper articles (including New York Times and Washington Post) and business information (including SEC filings).
- Lexis-Nexis Company Dossier—Provides online access to extensive, current data on 13 million companies. It collects and compiles information into excellent document sets.
- MergentOnline—Provides online access to Mergent’s Manuals, which include trend, descriptive, and statistical information on hundreds of public companies and industries. Unconsolidated company income statements and balance sheets are provided.
- PrivCo—Provides information on privately held companies, including private financials and revenues; private M&A deals and deal multiples, private firm valuations; VC funding, private equity deal history; and private and family ownership data.
- Regional Business News—Provides comprehensive full-text coverage for regional business publications; incorporates coverage of more than 80 regional business publications covering all metropolitan and rural areas within the United States.
- Standard & Poor’s NetAdvantage—Provides online access to Standard & Poor’s (S&P) Industry Surveys, stock reports, corporate records, The Outlook, mutual fund reports, and more. Locate the “Company” tab at the top of the page or the “Simple Search” option located on the right side of the page. Use the “Company Profile” option.
- Value Line Investment Survey—Provides excellent on...
line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance line information and advice on approximately 1,700 companies, more than 90 industries, the stock market, and the economy. Company income statements and balance.

Trend 4: utilize qspm analysis to determine the relative attractiveness of strategies

Because no organization has unlimited resources, top managers must decide which alternative strategies will benefit the firm most. Strategy-formulation decisions commit an organization to specific products, markets, resources, and technologies over an extended period of time. Strategies determine long-term competitive advantages. For better or worse, strategic decisions have major long-term consequences and enduring effects on an organization. Top managers have the best perspective to understand fully the ramifications of strategy-formulation decisions; they have the authority to commit the resources necessary for implementation.

Other than ranking strategies to determine their respective relative attractiveness, organizations are increasingly using QSPM (Quantitative Strategic Planning Matrix) analysis (David, 1986; David, David, & David, 2017). The QSPM allows strategists to evaluate alternative strategies objectively, based on previously identified external and internal key success factors. Like other strategy-formulation analytical tools, the QSPM represents the assignment of ratings (called attractiveness scores), but making “small” rating decisions enables strategists to make effective “big” decisions, such as which country to spend a billion dollars in to sell a product. Conceptually, QSPM analysis is used to determine the relative attractiveness of each strategy based on the extent that the key external and internal factors are capitalized on or improved (David, et al., 2016). The relative attractiveness of each strategy is computed by determining the cumulative impact of each external and internal factor. Any number of strategies can be included in the QSPM.

The basic format of the QSPM is illustrated in Table 1. Note that the left column of a QSPM consists of key external and internal factors (from Stage 1), and the top row consists of feasible alternative strategies (from Stage 2). Specifically, the left column of a QSPM consists of information obtained directly from a SWOT analysis respective external and internal factors. In a QSPM, strategies should be stated in specific terms, such as “Open 275 new stores in Indonesia,” rather than “Expand globally” or “Open new stores in Africa.”

Specificity is vital because ultimately a dollar value must be established for each recommended strategy; it would be impossible to establish a dollar value for “expand globally.” If you cannot reasonably assign a dollar value to a QSPM (or SWOT) strategy, then the strategy is too vague. Companies today have come to realize that vagueness is disastrous in strategic planning.

<table>
<thead>
<tr>
<th>Alternative strategies</th>
<th>Weight</th>
<th>Strategy 1</th>
<th>Strategy 2</th>
<th>Strategy 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key external factors</td>
<td></td>
<td>AS</td>
<td>TAS</td>
<td>AS</td>
</tr>
<tr>
<td>Economy</td>
<td>0.25</td>
<td>1</td>
<td>0.25</td>
<td>1</td>
</tr>
<tr>
<td>Political/legal/governmental</td>
<td>0.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social/cultural/demographic/ environmental</td>
<td>0.10</td>
<td>1</td>
<td>0.10</td>
<td>2</td>
</tr>
<tr>
<td>Technological</td>
<td>0.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitive</td>
<td>0.15</td>
<td>2</td>
<td>0.30</td>
<td>1</td>
</tr>
<tr>
<td>External total</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key internal factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>0.15</td>
<td>3</td>
<td>0.45</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance/Accounting</td>
<td>0.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production/operations</td>
<td>0.15</td>
<td>3</td>
<td>0.45</td>
<td>1</td>
</tr>
<tr>
<td>Research and development</td>
<td>0.20</td>
<td>2</td>
<td>0.40</td>
<td>2</td>
</tr>
<tr>
<td>Management information systems</td>
<td>0.05</td>
<td>1</td>
<td>0.05</td>
<td>2</td>
</tr>
<tr>
<td>Internal total</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum total attractiveness score</td>
<td>0.00</td>
<td>2.00 3.13</td>
<td>2.00 1.12</td>
<td>1.85 1.75</td>
</tr>
</tbody>
</table>


The components of the QSPM include: strategic alternatives, key factors, weights, attractiveness scores (AS), total attractiveness scores (TAS), and the sum total attractiveness score. The three new terms just introduced—(1) attractiveness score, (2) total attractiveness score, and (3) the sum total attractiveness score—are defined and explained as the six steps required to develop a QSPM are discussed below (David, David, & David, 2020, p. 183-184):

Step 1
Make a list of the firm’s key external opportunities and threats and internal strengths and weaknesses in the left column of the QSPM. This information should be taken directly from a SWOT analysis.

Step 2
Assign weights to each key external and internal factor.

These weights are identical to those in the EFE (External Factor Evaluation) Matrix and IFE (Internal Factor Evaluation) Matrix. The weights are presented in a straight column just to the right of the external and internal factors.

Step 3
Examine the Stage 2 matching matrices, and identify alternative strategies that the organization should consider implementing. Record these strategies in the top row of the QSPM.

Step 4
Determine the Attractiveness Scores (AS), defined as numerical values that indicate the relative attractiveness of each strategy considering a single external or internal factor. Attractiveness Scores (AS) are determined by examining each key external or internal factor, one at a time, and asking the question, “Does this factor affect the choice being made?” If the answer to this question is yes, then the strategies should be compared relative to that key factor. Specifically, AS should be assigned to each strategy to indicate the relative attractiveness of one strategy over others, considering the particular factor. The range for AS is 1 = not attractive, 2 = somewhat attractive, 3 = reasonably attractive, and 4 = highly attractive. By “attractive,” we mean the extent that one strategy, compared to others, enables the firm to either capitalize on the strength, improve on the weakness, exploit the opportunity, or avoid the threat. Work row by row in developing a QSPM. If the answer to the previous question is no, then the strategy is not affected by that factor and no effect on the specific choice being made, then do not assign AS to the strategies in that set. Use a dash (or 0 if using the template) to indicate that the key factor does not affect the choice being made. If you assign an AS score to one strategy, then assign an AS score(s) to the other—in other words, if one strategy receives a dash (or 0)—then all others must receive a dash (or 0) in a given row.

Step 5
Compute the Total Attractiveness Scores (TAS). TAS are defined as the product of multiplying the weights (Step 2) by the AS (Step 4) in each row. The TAS indicate the relative attractiveness (AS) of each alternative strategy, considering only the impact of the adjacent external or internal critical success factor. The higher the TAS, the more attractive the strategic alternative (considering only the adjacent critical success factor).

Step 6
Compute the Sum Total Attractiveness Score. Add TAS in each strategy column of the QSPM. The Sum Total Attractiveness Scores (STAS) reveal which strategy is most attractive in each set of alternatives. Higher scores indicate more attractive strategies, considering all the relevant external and internal factors that could affect the strategic decisions. The magnitude of the difference between the STAS in a given set of strategic alternatives indicates the relative desirability of one strategy over another.

QSPM analysis can be used to make decisions in a variety of business types ranging from small businesses to large multinational corporations, not-for-profits and governments. With respect to using QSPM analysis in a rapidly changing world, the technique can be immensely helpful. Take for example the new BMW plant on schedule to be built in Debrecen, Hungary. BMW could have used QSPM analysis to determine the relative attractiveness of the plant location and ultimately BMW decided on Debrecen for the new plant location. Major strategic decisions require increased research and objective decision-making; it is our view that QSPM analysis is both an effective and useful when the data flowing from the SWOT is well researched and meets AQCD standards. A rapidly changing world and increased need for agility necessitates well thought out and constructed strategic plans. Using QSPM analysis can lend itself in making excellent long term strategic decisions in a turbulent business environment such as we experience today.

QSPM can also be effectively used for more tactical mid range strategies. For example, BMW deciding on increasing SUV production by 5 percent or increasing compact electric car production by 5 percent could also be determined through QSPM analysis. An example such as this would address a more agile business environment where consumer preferences change more frequently than historically. This latter example is not as strategic in nature as where to locate a new facility, as more tactical strategies such as these can be changed the next year more easily than relocating a manufacturing facility. In many respects, having a detailed strategic planning process is not as important as using the software provided at the www.strategyclub.com website is currently more important than ever since there is far less forgiveness for strategic mistakes due to increased agility of rival firms and ever-changing consumer preferences and habits.

Trend 5: use excel-based software to facilitate the strategic planning process

Another emerging trend or tool being utilized by companies to more effectively do strategic planning is incorporation of excel-based software to facilitate the process. Specifically, the software provided at the www.strategyclub.com website is increasingly being used by companies to facilitate development of appropriate planning matrices and more. Given below are twelve reasons that companies today are using the excel-based strategic planning template at www.strategyclub.com (David, David, & David, 2020, p. 23):

1. To save time in preparing a strategic-management case analysis; enables user to focus on the “thinking rather than the mechanics” of developing matrices and performing analyses.
2. To follow the correct process in formulating and implementing the strategies.
3. To avoid mistakes in math calculations, plotting points, and drawing graphs.
4. To develop professional-looking charts, graphs, and matrices.
5. To develop existing and projected financial ratios.
6. To correctly place firms in BCG and IE portfolio.
matrices.

7. To examine many different scenarios for using debt versus stock to raise needed capital, using EPS-EBIT analysis.

8. To vary weights and ratings in matrices and to see the resultant impact on total weighted scores.

9. To more easily share information with team members and colleagues.

10. To more easily develop projected financial statements to reveal the expected impact of various strategies.

11. To develop skills with perceptual mapping or product positioning.

12. To gain experience using actual corporate strategic planning software; many business jobs require proficiency in Excel, which students gain in using the template.

CONCLUSION

Strategic management enables a business or organization to be proactive rather than reactive in shaping its own future; it allows an organization to initiate and influence (rather than just respond to) activities, and thus, to exert control over its own destiny. Small business owners, chief executive officers, presidents, and managers of many for-profit and non-profit organizations have recognized the importance of doing strategic planning effectively - and they are increasingly using the five tools and techniques described in this paper to be successful in this endeavour. To gain and sustain competitive advantages, firms must create and nurture a clear vision and mission, and then systematically perform SWOT and QSPM analyses utilizing AQCD oriented factors.

Consistent business success rarely happens by luck or chance; it most often results from careful strategic planning followed by diligent, intelligent, hard work. If the process were easy, every business would be successful. Scanning the environment: Evidence from the oil majors. Strategic Management Journal, 2018, Vol. 25 Issue 7, p317-339. 23p


Meredith E. David, Fred R. David & Forest R. David (2016): 11. To develop skills with perceptual mapping or product positioning. 12. To gain experience using actual corporate strategic planning software; many business jobs require proficiency in Excel, which students gain in using the template.

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Gender Dynamics in Consumer Preferences and Willingness to Pay for Edible Mushrooms in Ghana

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Abstract: This study uses choice experiment to investigate men and women consumers’ preferences and willingness to pay for edible mushrooms in Ghana. We used a mixed logit model to examine preference heterogeneity. The econometric modelling revealed that men consumers have a negative utility for oyster mushrooms compared to straw mushrooms. They also have preference for cheap and locally cultivated mushrooms compared to expensive and imported mushrooms. However, women consumers have preferences for the shiitake mushroom variety compared to the straw mushroom variety. They also prefer cheap mushrooms irrespective of their location and such mushrooms must be frozen and not fresh. The findings highlight variation between men and women in preferences for mushroom variety, however, both have preferences for low prices, suggesting that both genders are economically rational and obey the law of demand.

Keywords: edible mushrooms, gender, preferences, choice experiment, mixed logit

JEL Classification: B21, D12

Improving the marketing aspect of mushroom production requires an understanding of consumer preferences. Specifically, what are consumers’ preferences for different mushroom varieties including straw, white button, oyster and milky mushrooms, among others. The quest to understand consumer preferences has attracted attention among researchers in recent times. For instance, Mahantesh, Ashlawat, and Manikandan (2014) conducted a study on mushroom consumption and purchasing behaviour in India and found that out of 258 respondents, 206 respondents preferred the white button mushroom variety to oyster mushroom, while the shiitake and milky mushrooms were preferred by few consumers. In a related study, Boin and Nunes (2018) found among a sample of Portuguese consumers that 81.9% preferred mushrooms, out of which 41% preferred white button mushrooms weekly. The findings showed that the consumers frequently consumed the white button mushroom compared to the other types of mushrooms. Contrary to their findings, a survey conducted by Kortel et al. (2018) on mushroom consumption and the possible use of gamma irradiation for sterilization of compost for its cultivation in Southern Ghana revealed that 72% of consumers preferred oyster mushroom to the termite and straw mushrooms.

Although previous studies have revealed consumer preferences for different mushroom varieties (Kortel et al., 2018; Boin & Nunes, 2018; Mahantesh et al., 2014), the following limitations are identified. Firstly, the study employed a revealed preference approach to examine consumer preferences ignoring potential unobserved heterogeneity. Secondly, the studies ignored gender dynamics in consumer preferences by assuming that both men and women have equal preferences for mushroom varieties. However, research has shown that men and women have varying preferences (Gough & Conner, 2006; Roos, Prättälä, & Koski, 2001), which need to be accounted for. The present study addresses the limitations by adopting a stated preference approach that allows one to model unobserved heterogeneity for preferences and to account for substitution trade off among a bundle of goods, in this instance, mushrooms.

Although there are different types of stated preference techniques such as contingent valuation and discrete choice experiment, the latter is adopted in this study because it allows the opportunity to examine multiple attributes of mushrooms, and to also compute consumers’ willingness to pay. The only study that has modelled consumer preferences for mushrooms using choice experiment is Chakrabarti, Campbell, and Shonkwiler (2019a). Chakrabarti et al. (2019a) investigated consumer preference and willingness to pay for mushrooms in Connecticut in the United States and found that there were different segments of consumers with preferences for different mushroom attributes. However, there is a point of departure of this study from Chakrabarti et al. (2019a), and that is accounting for potential gender variation in preferences.

The specific choice experiment model adopted in the study is mixed logit model, which is an advanced discrete choice model (Hole & Kolstad, 2012). The mixed logit model is an extension of the conditional logit model because it has the flexibility of accounting for unobserved heterogeneity among consumers. The study was conducted among consumers in the Cape Coast metropolis of the Central region of Ghana. The Cape Coast metropolis was selected for the study because it is one of the key areas earmarked for mushroom production in Ghana. Using a sample of 190 consumers, the econometric modelling revealed that men mushroom consumers prefer oyster mushroom to straw mushroom. They also have preferences for mushrooms that have been locally produced compared to the imported ones. The women mushroom consumers on the other hand preferred shiitake mushrooms to straw mushrooms. Like the men consumers, the women consumers also preferred local mushrooms to imported mushrooms.

Choice experiment design

Identification of attributes and their levels represent the starting point of choice experiment studies. With thorough literature search and experts’ interviews, we identified the following attributes: mushroom variety, mushroom form, label, location and price per kilogram as the attributes for the study. The mushroom variety attribute was of three levels-straw, shiitake and oyster. There were also four levels to the mushroom form attribute-fresh, frozen, dried and canned.

LITERATURE REVIEW

Consumer behavior in the mushroom market has been of interest to researchers over the years. For instance, Patterson (2003) conducted a study among mushroom consumers in the United States and found that 94% of the sampled consumers preferred white button mushrooms to portobella and others. Mayett et al. (2006) also examined consumer consumption trends of edible mushrooms in Mexico and found that about one-half (49.4%) of the urban consumers do not buy mushrooms, independently of their social level. The other half (50.6%) do not buy mushrooms for several reasons including lack of access (75.5%), availability (18.3%), and 6.2% constituted other various reasons.

Mahantesh et al. (2014) study of mushroom consumption and purchasing behavior in India showed that all the 285 respondents responded to the questionnaires. Campbell and Shonkwiler (2019a) conducted a study on consumer preference of mushrooms using fuzzy analytic hierarchy process in Turkey and found that consumers preferred to buy well packaged mushrooms from market because of higher confidence in the market. Also, the consumers perceived that packaged mushrooms are healthier than the unpackaged ones in the market. The findings also revealed that consumers preferred mushrooms that are cultivated to those from the wild because of fear of poisoning.

Also, Lindé et al. (2014) study on mushroom acceptability and consumption intention in Brazil revealed that the most accepted mushrooms in Brazil are the white button mushroom, followed by oyster mushroom, almond mushroom and shiitake mushroom because of its aroma, flavor, and fibre. Boin and Nunes (2018) study on the consumption behavior and influencing factors in a sample of Portuguese population revealed that 81.9% of the respondents consumed mushrooms, out of which 41% consumed mushrooms once a week. The white button mushroom was the most frequently consumed mushroom compared to the brown and shiitake mushrooms. Also, canned mushrooms were frequently consumed in comparison to the fresh ones. A similar study conducted by Chakrabarti et al. (2019a) on eliciting consumer preference and willingness to pay for mushrooms in the United States revealed a segmentation among mushroom consumers. Preferably, Chakrabarti et al. (2019a) is the only known study of the mushroom market using discrete choice experiment techniques.
The target population included consumers in the Central region of Ghana. Respondents were selected using a multistage sampling technique. In the first stage, Cape Coast metropolis, was purposively selected. This was followed by the selection of the communities within the metropolis-Duakor, Amanzum, Cape Vars, and Ayensu. The overall sample for the study comprised 190 respondents, with 30 from Duakor, 50 from Ayensu, 60 from Cape Vars and 50 from Amanzum. The data collection was conducted between September and October 2019. The survey comprised information on the socio-economic characteristics of the respondents, and the choice experiment. Each respondent was asked to choose his/her preferred edible mushroom alternative in 10 choice situations.

Econometric framework

The discrete choice experiment technique is based on Lancaster’s characteristic theory of value, which states that an individual obtain utility from the characteristics of the good rather than the good itself. Its econometric basis is enshrined in the random utility theory.

The attributes of alternative j in choice occasion t faced by consumer n could be labelled as vector Xi jnt. The utility obtained by consumer n from alternative j in choice occasion t is specified as:

\[ U_{njt} = \gamma_{njt} + \epsilon_{njt} \]  

where the coefficients of \( \gamma_{njt} \) in n is unobserved and varies in the population with a density function \( f(\gamma_{njt} \mid n) \) while \( \epsilon_{njt} \) are parameters to be estimated. \( \epsilon_{njt} \) is an unobserved random term that is independently and identically distributed. The unconditional probability of the sequence of choices made by an individual is expressed as:

\[ P_{njt}(\theta) = \int P_{njt}(\epsilon_{njt}, \theta) d\epsilon_{njt} \]  

The mixed logit specified in eq. (2) accounts for only conditional heterogeneity but not conditional heterogeneity (explain the sources of heterogeneity). To account for conditional heterogeneity, model expansion is required to incorporate socio-economic characteristics of respondents. This process enables the model to pick up both conditioned and conditional heterogeneity and further improves the model fit (Birrol et al. 2006). Including respondents’ socio-economic characteristics as \( S_n \), results in eq. (3):

\[ P_{njt}(\theta) = \int \frac{f(\gamma_{njt} \mid n, \theta)}{\sum_{i \in S_n} f(\gamma_{njt} \mid n, \theta)} d\gamma_{njt} \]  

where all parameters are as earlier defined.

Maximum likelihood (ML) is often employed in accounting for preference heterogeneity. The ML works on the principle of searching for a solution by simulating n draws from distributions with given means and standard deviations (Birrol et al., 2006). Joint simulated distribution integration is used to obtain probabilities.

The standard approach to simulation estimation is based on random draws. However, with large samples and complex models, this can be very time consuming. The Halton draw, therefore, serve as an alternative to the random draw with the advantage of speed gains and no degradation in simulation performance (Revelt & Train, 1998).

Estimating willingness to pay

The consistency of choice experiment with consumer theory makes it suitable in estimating welfare effects such as the willingness to pay. Willingness to pay (WTP) is a measure of the trade-off between non-price attributes and a price attribute. In the choice experiment literature, two approaches have been proposed in estimating WTP: the indirect ratio method and the direct method (Owusu Coffie, Burton, Gibson, & Hailu, 2016). The indirect approach, also called the preference space model has received lots of criticisms in the literature because of the biases it introduces into the WTP values (Hole & Kolstad, 2012). Hensher (2006) therefore advances that individual level parameters of the preference space model be used to compute the willingness to pay values. In this paper, the individual level parameters were simulated in Stata using 10 000 draws, followed by the calculation of the willingness to pay values as the ratio of non-price attributes to the price attribute.

RESULTS AND DISCUSSION

Descriptive statistics

The descriptive statistics of respondents are presented in Table 2. From the table, the average age of the sampled consumers is 26, indicating a youthful population. The gender variable, which was measured as a dummy (0,1) has an average of 0.3, indicating that most of the sample are men compared to women. The education level also measured as a dummy (where educated =1) has a mean of 0.98, suggesting that almost all the sampled consumers have some form of education. The average monthly income for the sample was 759 Ghana cedis. For the men and women specific characteristics, we observe that both are about equal age. The men in the sample seem to earn more than their female counterparts, however, a t-test shows no significant differences in the income of both men and women. The results in the table also show all the men in the sample are educated, although those educated are in the majority.

Table 2: Sample descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pooled sample</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26</td>
<td>8.9</td>
<td>26.7</td>
</tr>
<tr>
<td>Gender</td>
<td>0.311</td>
<td>0.464</td>
<td>-</td>
</tr>
<tr>
<td>Educational level</td>
<td>0.98</td>
<td>0.12</td>
<td>1.00</td>
</tr>
<tr>
<td>Average monthly income (Ghana cedis)</td>
<td>759</td>
<td>618</td>
<td>700</td>
</tr>
</tbody>
</table>

| Note: SD-standard deviation |

Standard mixlogit model

The correlated mixed logit model estimates are presented in Table 3. Consistent with economic theory, the price coefficient for men mushroom consumers is negative and significant, indicating that consumers prefer a lower priced mushroom to a higher priced mushroom. The utility coefficient in Table 3 also show that men consumers have a disutility for the oyster mushroom compared to the straw mushroom. They are, however, indifferent towards shiitake mushroom. Men mushroom consumers are also indifferent towards mushroom forms such as frozen, dried or canned as shown in the insignificant coefficient of those attributes. The location attribute is also significant and showing that men consumers prefer locally produced mushrooms to imported mushrooms. The women mushroom consumers also have preference for shiitake mushroom compared to straw mushroom. They also have a utility for frozen mushrooms compared to fresh mushrooms. Like the men, women consumers prefer locally produced mushrooms to imported mushrooms. Their demand also follows the law of demand where more is demanded at a lower price and vice versa. The significance of most of the standard deviations (heterogeneity in the mean) show that unobserved heterogeneity exists in the preferences of consumers for mushrooms.

Table 3: Correlated mixlogit model estimates

<table>
<thead>
<tr>
<th>Men-ML correlated</th>
<th>Women-ML cor.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.35***</td>
<td>0.16</td>
</tr>
<tr>
<td>Mushroom variety</td>
<td>Oyster mushroom variety</td>
<td>-0.16</td>
</tr>
<tr>
<td>Shiitake mushroom</td>
<td>Frozen mushroom</td>
<td>0.22</td>
</tr>
<tr>
<td>Dried mushroom</td>
<td>Canned mushroom</td>
<td>0.05</td>
</tr>
<tr>
<td>Status quo</td>
<td>Mushroom label</td>
<td>-0.39</td>
</tr>
<tr>
<td>Location</td>
<td>1.38***</td>
<td>0.21</td>
</tr>
<tr>
<td>Price</td>
<td>0.04***</td>
<td>0.01</td>
</tr>
<tr>
<td>Status quo</td>
<td>4.53***</td>
<td>0.54</td>
</tr>
<tr>
<td>Heterogeneity in mean</td>
<td>Oyster mushroom variety</td>
<td>0.70***</td>
</tr>
<tr>
<td>Shiitake mushroom</td>
<td>Frozen mushroom</td>
<td>0.48</td>
</tr>
<tr>
<td>Dried mushroom</td>
<td>Canned mushroom</td>
<td>0.97***</td>
</tr>
<tr>
<td>Status quo</td>
<td>Mushroom label</td>
<td>0.80</td>
</tr>
<tr>
<td>Location</td>
<td>1.72***</td>
<td>0.22</td>
</tr>
<tr>
<td>Price</td>
<td>0.06***</td>
<td>0.01</td>
</tr>
<tr>
<td>Status quo</td>
<td>7.85***</td>
<td>1.05</td>
</tr>
</tbody>
</table>

N=LL-Log likelihood, BIC-Bayesian information criteria, N-Number of observations
Mixed logit model with interaction

To explain the sources of heterogeneity among respondents, the attributes were interacted with some socioeconomic variables including age, income level and educational status. The results are presented in Table 4. From the table, we observe that older men consumers of mushroom prefer mushrooms that are cultivated compared to mushrooms from the wild as indicated by the negative and significant interaction between label and age (-0.02). This finding is consistent with Gurgen et al., (2018) study that found sampled consumers prefer for cultivated mushrooms compared to the wild. The men consumers’ preference for the cultivated mushroom in comparison to the wild is likely rising out of the fear of poisoning from consuming mushrooms from the wild.

The older men consumers also prefer mushrooms that have been cultivated locally compared to imported mushrooms. However, educated men mushroom consumers prefer to consume imported mushrooms to local mushrooms. Of the variables including age, income level and educational status. The results are presented in Table 4. From the table, we observe that several attributes in the men consumers model are significant indicating that conditional heterogeneity is important in accounting for preferences.

Willingness to pay

The willingness to pay values are represented in Table 5. The results show that both men and women are willing to pay a premium of GH¢32 and GH¢24, respectively for mushrooms with a location attribute, suggesting that location is an important factor that consumers of mushroom consider before purchasing them. The men are also willing to pay about GH¢11 for the oyster mushroom variety. The women consumers on the other hand have discounted the willingness to pay distributions: A comparison of models for the mushroom industry in Ghana. It is also recommended that the value chain for the mushroom industry be developed to ensure that mushrooms would be readily available to consumers. Furthermore, there should be awareness creation on the various types of mushrooms available on the Ghanaian market and their nutritional value.

Table 4: Mixed logit model with interaction estimates

<table>
<thead>
<tr>
<th>Location</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location*Age</td>
<td>-0.02***</td>
<td>0.01</td>
<td>-0.02***</td>
<td>0.01</td>
</tr>
<tr>
<td>Label*Age</td>
<td>0.02***</td>
<td>0.01</td>
<td>0.02***</td>
<td>0.01</td>
</tr>
<tr>
<td>Label*Income</td>
<td>0.00***</td>
<td>0.00</td>
<td>0.00***</td>
<td>0.00</td>
</tr>
<tr>
<td>Location*Age</td>
<td>-0.07***</td>
<td>0.01</td>
<td>-0.07***</td>
<td>0.01</td>
</tr>
<tr>
<td>Location**Education</td>
<td>0.22***</td>
<td>0.07</td>
<td>0.09**</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Table 5: Willingness to pay estimates

<table>
<thead>
<tr>
<th>Men-ML correlated</th>
<th>Women-ML correlated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Oyster mushroom variety</td>
<td>10.91***</td>
</tr>
<tr>
<td>Shiitake mushroom variety</td>
<td>-6.06</td>
</tr>
<tr>
<td>Frozen mushroom</td>
<td>10.04</td>
</tr>
<tr>
<td>Dried mushroom</td>
<td>19.28</td>
</tr>
<tr>
<td>Canned mushroom</td>
<td>20.71</td>
</tr>
<tr>
<td>Mushroom label</td>
<td>2.57</td>
</tr>
<tr>
<td>Location</td>
<td>3.55***</td>
</tr>
</tbody>
</table>

Note: LL-Log likelihood, BIC-Bayesian Information Criteria.

CONCLUSION

This paper investigated sampled consumers preferences and willingness to pay for mushrooms in Ghana on gender basis. Using the mixed logit modelling technique, we found that men consumers have negative utility towards oyster mushroom compared to straw mushroom. They also preferred locally produced mushrooms that are cheap compared to locally produced mushrooms that are expensive. The women consumers also had preferences for shiitake mushrooms that are sold frozen compared to fresh mushrooms. The findings further revealed that the older men and women mushroom consumers prefer locally produced mushrooms to imported mushrooms. The findings suggest that there is ready market for locally cultivated mushrooms in Ghana, however, the mushrooms must be affordable. It is therefore recommended that government invests in cost effective cultivation techniques for the mushroom industry in Ghana. It is also recommended that the value chain for the mushroom industry be developed to ensure that mushrooms would be readily available to consumers. Furthermore, there should be awareness creation on the various types of mushrooms available on the Ghanaian market and their nutritional value.

REFERENCES


GENDER DYNAMICS IN CONSUMER PREFERENCES AND WILLINGNESS TO PAY FOR EDIBLE MUSHROOMS IN GHANA

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Abstract: Agriculture plays an outstanding role in Romania, since there are nearly three and a half million small farms operating in the country, accounting for almost 96% of the total number of farms, and scarcely more than 32% of the available farm land is cultivated by 35% of the population. In the settlements found in the catchment area of Csíkszereda, the majority of farms consist of family farms smaller than 5 hectares. The marketing of good quality products made from local raw material by traditional methods contributes to the sustenance of the farm families. Researches show that as a result of the education of the farmers on a local level more and more processed products appear in the markets of Csíkszereda town. Farmers involved in the local market intend to expand their farms on the long run. The respondents consider that “a piece of land can be sold only once”, that is why the sustenance of the farm became the main goal of multi-generational effort. Younger farmers are usually more educated and more open to innovation. The vast majority of farmers under 45 find it important to market their products through rural tourism and they are also more eager to join producer groups. Young farmers need to merge traditional methods and knowledge inherited from previous generations with modern opportunities and methods that facilitate production and marketing. Knowledge gained this way makes it possible for small farms to market their products through short supply chains.

INTRODUCTION

The importance of short supply chains is underscored by the fact that a significant proportion of food today reaches the consumer through such short supply chains (Committee of the Regions, 2011). Supporting and researching local short supply chains from an economic, social, and legal perspective can bring about the innovative and structural boost of the Regions, (2011). The participants in short supply chains are usually small farms which can hardly compete with large-scale food producers. The small-scale farms are more likely to be affected by external factors such as weather conditions, market fluctuations, and transport costs. Therefore, it is crucial to support and promote local production to ensure food security and sustainable development.

LITERATURE REVIEW

According to the international literature on short supply chains, the popularity of producer markets is on the rise despite high prices practiced by producers manufacturing premium category products (Benedek et. al, 2013). Environmentally conscious consumers pursue this type of purchasing experience, and the direct contact with the producer establishes this way forms the basis of support for local producers. Meeting the changing consumer demands requires above average educations (Juhász, 2012). Analyses focusing on products marketed through short supply chains reveal that the quality parameters of products are regarded as a key factor – consumers consider that food purchased in local markets is fresher and more delicious. This contributes to the increasing trends in the number of local markets in the United States of America (Brown, A., 2002, Bullock, S., 2000).

It is likely, that the income realized by selling local products through short supply chains remains in the village/settlement because the local producer will probably spend his income at home. Research carried out in London proves that small shops and restaurants in the neighborhood of local markets selling local products experienced an increase in their income. The reason lying behind this phenomenon is that customer behavior entails the extension of shopping to small shops in the area. Shop assistants, on their turn, also become consumers of market area services (Taylor et al. 2005). Furthermore, experience with well-established German (Chiemgauer) and Swiss (WIR) local currencies shows that mean of immobile monetary substitute (local currency) increases the amount of money remaining in area and strengthens local economy (Varga, 2016a; Varga, 2017). The possibility for catch up of the micro-regions located mainly on the periphery can lie in short supply chains (OECD,1995). This channel of food provision is expanding even in more developed regions. In today's food production the socio-economic effects related to food quality become more and more prominent. Such supply chains exercise a more moderate impact on the environment than traditional chains, since the methods of production and distribution are more environmentally friendly, although this varies from product to product. Food kilometers include numerous other factors because apart from noise pollution the probability of accidents and traffic jams is also multiplied. These negative externalities can generate social problems as well.

The participants in short supply chains are usually small farms which can hardly produce any goods for export after providing for local consumers (Szabó, 2017). From the perspective of consumers and producers, short supply chains might be the solution for the pile of problems caused by traditional food industry (Benedek, 2014). The solution is even more optimistic provided that not only the goods but also financial aspect is a “local product”, namely, a local currency, and in this way the purchasing power remains on the spot (Varga, 2016b).

Markets today

In support of local farmers, as a national peculiarity, the Agricultural Chamber of Hargita County organized for the first time in 2009 the exhibition and market of traditional, local goods in Csíkszereda. The goal of this singular initiative was to assure a new marketing opportunity and livelihood for local farmers and producers. The unconcealed ambition of the administrative body operating as an umbrella organization was to encourage consumers to purchase local goods. The overwhelming success of the initiative is reflected by the growing interest in local markets. Maintaining the initial success, a local market takes place in Csíkszereda on the third Saturday of every month, and apart from this, there is a demand for a similar market in Székelyudvarhely on the fourth Saturday. Gradually, the local councils became involved in this initiative, so an increasing number of villages organize their own markets, which leads us to conclude that there is an increasing demand on the part of local producers for this type of local distributionality. Emboldened by the success of the monthly markets, the initiators started to organize seasonal markets as well (Figure.1.). On these thematic (autumn, spring, Christmas, apiculture) markets and exhibitions the visitors are welcomed with a wider range of products and a two-day cultural program.

Figure 1. Producers participating on the local market broken down on an annual basis

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Source: own elaboration based on data provided by Hargita County Council

The success of the monthly and seasonal markets can be measured by the increasing number of farmers present at these events. Eastern and Christmas markets are outstandingly popular, but similar marketing opportunities attract more and more producers as well.

As early as in 2000, the Agricultural Chamber of Hargita County started courses for local farmers where they could acquire methods of processing agricultural products. Graduates of these courses are keen to market their products at the monthly markets. Between the years 2000 and 2018 more than 3400 beekeepers (Figure 2), 760 agronomists, more
The tenancy system of our region is mostly characterised by the features of the Romanian tenure system. More than 98% of the farmers in the Hargita county –count as relatively prominent-scale farms. Farmers with higher education degree is contemplating the liquidation of their farms in their present shape and size. None of the farmers with primary education are planning to sustain their farms in its present state, 27,5% of them is considering expansion, and only 2% are planning reduction. Some of our respondents aiming at sustaining their farms would like to reduce them, with a higher education degree are planning to liquidate their farms, perhaps they would hand it down. 68,6% of the farmers with secondary education degree claim that they are aiming at sustaining their farms in its present state, only after great family tragedies, as a last resort. I was glad to hear that none of the farmers belonging to this group would like to liquidate their farm, perhaps they would hand it down.

The quality and the quantity of the data collected required the use of data mining means because traditional statistical and regression methods proved insufficient (Péter and Illyés, 2018). A data mining tool extracts information from data. This process is based on statistical methods and/or on Shannon's information theory (Shannon 1948). The extraction of information is carried out by artificial intelligence algorithms. These data cannot be extracted with classical statistical methods. Data mining looks for patterns in the data serving decision support preparation. The oldest classical artificial intelligence method from the toolbox of data mining is the regression method. Data mining is the extrapolation of this method because it not only forecasts numerical values, but it also handles categorization. We use the data mining tool Weka (Hall, 1998) developed at The University of Waikato in New Zealand.

RESULTS AND DISCUSSION

The majority of farms in our region are managed by men so there are 65 men and 7 women in our sample. 18 of our interviewees were under the age of 35, but most of farmers were over 36, out of whom 6 were university graduates, and 51 had secondary school education. At the time of the questionnaire completion, 23 farmers were managing bio-farms, and 19 further persons declared that they would rather use ecologically sound technologies.

The level of education was prominent in the research. The majority of the respondents attended higher education, a tiny proportion was secondary school graduates, and only a quarter had primary school education. During the personal interviews, the farmers emphasized the importance of other forms of education which are difficult to categorize, reporting that they missed the final exam at the end of the course.

The market presence of human capital at an adequate level and quality is a necessary condition for economic growth (Kelemen and Kollár, 2007). After clarifying the data, for the sake of transparency we chose to use decision trees, which is a branch of artificial intelligence providing field specialists with interpretable information.

Classifier J48 is a Java script variant of classifier C4.5 (Quinlan, 1993). The categories of belonging to an informal group and that of the processed products were highlighted because respondents frequenting local markets emphasized the importance of these factors. The results of this method also underscore the attitude of small-holder farmers in our region towards agricultural labour. Our analysis sheds light on the importance of family tradition-based product processing, and the outstanding role played by belonging to different producer and marketing groups in everyday life.

In what follows, we analyze the statistical distribution of attributes considered important by the models.

From the perspective of processed food, provided that the hospitality industry is important for the farmer, s/he will not focus on processing the product. Furthermore, if hospitality is not a priority for the farmer, his/her decisions related to food processing will be determined by the emerging new activity. If the new activity is food processing, fruit growing and tourism or maybe energy production, this indicates that the farmer has not invested in the processing industry yet. These are small, special cases named outliers requiring a different approach. Another special case is when the farmer shifts to livestock breeding and processes the products right away.

In case the farmer is not considering starting a new activity and he would like to market the products directly from home in the future, and the importance of this project is rated higher than (3) on the Likert scale, then the main activity of the farm will remain food processing. This is the main branch of the tree, the one determining the model the most, including 40 cases with 11 errors (predicting such cases with a 72.5% precision).

In case the farmer is considering starting food processing in the future, if marketing from home is very important (>4), then processing the products is not so important for him/her. These cases affect only a few individuals (3, out of which 1 is the error), which might be explained by the farmers' prioritising the processing better quality and a wider range of products as a result of the courses attended.

The data of the 2010 Agricultural census sheds light on the features of the Romanian tenure system. More than 98% of the farmers cultivate a farmland smaller than 10 hectares. The tenure system of our region is mostly characterised by fragmented small-scale farms (Figure 5), a phenomenon reflected in the samples.

35% of farmers with higher education cultivate farmlands bigger than 20 hectares, which –considering the geographical endowment and the tenure system possibilities of Hargita county –count as relatively prominent-scale farms. Farmers whose families invested more in training offering a higher level education for their offsprings, cultivate bigger farmlands or they farm more intensively (Nýtrai F. 2001). The economic growth achieved by these respondents is outstanding in our region.

The market of home production is influenced by the age distribution of the farmers, which is not even. 22.2% of the farmers between the age of 18-35 would like to expand their farms, nearly three quarter of them would like to sustain them at the present level, and only 16.7% is planning reduction. 34.5% of the farmers between the age 36-45 wants to expand their farms, although the majority of the respondents’ vision of the future of economy is very diverse. 21 interviewees would like to expand their farm, 6 of them would rather reduce it, and only one is considering liquidation. Fortunately, most of the farmers, over 62% of the respondents would like to continue farming, and their goal is to sustain their present farms (Figure 6). Over half of the farmers with primary education are planning to sustain their farms in their present shape and size. None of the farmers with a higher education degree is contemplating the liquidation or the transmission of the farm.

Marketing Opportunities of Local Products in the Catchment Area of Csíkszereda Town
The participants in short supply chains, both the producers and the customers usually have a higher level of education (supposedly the customers' income is also more consistent). It is an advantage for the producer (seller) to possess higher education qualifications, expertise, broad-mindedness, and flexibility when exploring new markets (Benedek et al., 2013). The cross table analysis of the respondents' level of education and age reveals that 11% of young farmers under the age of 35 featuring in the sample possesses higher education, and 20.7% of the farmers between 46-65 want to expand their farms. The cross generational attachment to the farmlands becomes apparent to such an extent that nearly one third of the population is related to this branch. Recognizing the presence of uncertainty factors is very important, and for 5.2% it is rather important, while for 13% it is moderately important, and for the majority it is not or only slightly important (Figure 7).

CONCLUSION

We analyzed the future opportunities of the mostly self-sustaining small farms existing in the mountainous agricultural lands of the region. In the present study I looked at producer small-scale farms, which – relying on the available traditions – are eagerly trying to adjust themselves to new consumer demands. The cross generational attachment to the farmlands becomes apparent to such an extent that nearly one third of the population is related to this branch. Recognizing the presence of uncertainty factors pertaining to the branch, such as weather changeability and the perishability of the products, the majority of the small-holder farmers from the catchment area of Csíkszereda town were looking for solutions in the establishing of inner coordination (Fertiő, 1996). The majority of our respondents do not consider wholesale market to be important because they would not like to share the income. Thus, intermediaries can be avoided and both the producer and the consumer can benefit from the extra profit generated this way (Erdutó Zrt., 2012). Stable quality products in demand among the consumers can be easily assured with this method (Kiss, 2018).

More than half of the respondents were not open to cooperation, 15.6% considered it moderately important, while 2.6% thought that some type of cooperation among farmers was very important. Being aware of the anti-cooperatives attitude, we included in our interview a question pertaining to informal cooperation eliciting nearly as many refusals as positive responses. The cross table analysis reveals that the majority of the farmers who has higher education qualifications, more than half of those with a secondary level of education, and almost 60% of those with a primary level education were glad to join a group based on informal cooperation.

The basic orientation of the respondents' future plans run their farms with the active contribution of 2 family members, a quarter of them have 3 family members in the business, and in some cases (12%) there are 4 members of the family. Apart from the family, farmers also appeal to casual workers. 72.7% of the respondents claimed that they employ casual workers. 73.3% of the farmers with one active family member would like to sustain their farms, 20% would like to expand it. 55.2% of the respondents with two active family members would like to maintain the present shape of their farms. 66.7% of the farms with three family members, 55.6% of the farms with four family members, and 75% of the farms run with the help of five family members are planned to be maintained in the future. The farmers included in our research feel responsible for the family members involved in the business, and they are striving to maintain their farms.

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THE STATUS OF AGRICULTURAL FINANCING BY COMMERCIAL BANKS IN ZIMBABWE

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Abstract: Agricultural finance is indispensable for enhancing productive capacity in both small-scale and commercial farming. This study sought to establish the current status of agricultural financing by 12 registered and operational commercial banks in Zimbabwe in the year 2019. Questionnaires and interview guides were used to collect data. SPSS and NVivo were used for data analysis. All the commercial banks participated in agricultural financing with an average agricultural loan portfolio of 30%. However, their participation in agricultural lending is yet to reach the pre-land reform maximum of 91.3% attained in 1999. Land tenure and weather risks, as well as lack of collateral among farmers reduced the banks’ appetite for lending to the agricultural sector. The majority of the commercial banks offered value chain finance, invoice finance, overdraft facilities, and term loans to agricultural sector clients that mainly included; suppliers, medium-scale, and large-scale commercial farmers. The study established a mismatch in the demand and supply of loans in the medium to long term tenure range of 1 to more than 3 years. There was low demand for 1-3-year tenure loans according to the commercial banks, and a corresponding deficit in the supply of highly demanded longer-term loans of more than 3 years for capital expenditure (CAPEX). Therefore, government should aim to; stabilize currency; arrest hyperinflation; restore economic stability; address land tenure to ensure the bankability of the 99-year Lease; and create an environment that is conducive for investment in climate and weather resilience infrastructure. Local farmers should also invest in human and physical capital to improve their access to bank credit.

Keywords: agricultural financing, capital formation, collateral, risk, term loans
(JEL Classification: Q14)

BACKGROUND

Agriculture is the largest sector in developing countries that is capable of generating the savings mass required for capital investments in other economic sectors to stimulate economic growth (Anríquez and Stamoulis 2007). However, early classical theory advocated for the reallocation of factors of production from such primary sectors that are characterized by low productivity, traditional technology and decreasing returns, to modern industrial sectors like manufacturing and services with higher productivity and increasing returns (Adelman, 2001). Agriculture was thus branded as a passive contributor to development, which did not deserve investment (Huang and Ma 2010). By neglecting agricultural sector investments, several countries like Argentina, Mexico, Nigeria, and the former Soviet Union encountered slowed development and failure in the long-run (Timmer, 1988). On the contrary, Japan, China and Korea registered growth and
entered the ranks of developed nations by heavily investing towards agricultural development (Huang and Ma 2010). Intense investments in agriculture by African countries like Burkina Faso, Rwanda, Kenya, Cote d’Ivoire, Ghana and Ethiopia also triggered productivity increases in existing farms by 6% annually, and average annual GDP growth in excess of 4% (Alliance for Green Revolution in Africa (AGRA), 2018). All of this is due to investments in productivity enhancing techniques like Greywater irrigation, which enhances their productivity, income and livelihoods. Financial capital is also a major stimulant for agricultural development (FACASI), 2015). Banks’ participation in agricultural financing, which are crucial in getting agricultural outputs, ensured that the majority entirely rely on agriculture for livelihoods (Vitoria et al. 2012). Agricultural financing challenges are also rife in Zimbabwe, where the majority entirely rely on agriculture for livelihoods (Diao, Hazell and Thrulow 2010). Besides, several world development bodies are now advocating for increased investments in the agricultural sector. The World Bank (2015) declared the need for US$70 billion annually in developing countries to eradicate poverty, whilst AGRA (2018) proposed that US$30 to US$40 billion is required annually over the next decade to transform African agriculture and create vibrancy. However, only 1% of commercial lending is earmarked for the agricultural sector in developing countries (International Finance Corporation (IFC), 2014). Moreover, only a quarter of loans advanced in Africa, south of the Sahara, originated from a bank (Fan et al. 2013). Agricultural financing challenges are also rife in Zimbabwe, a landlocked country that depends on primary economic activities like agriculture and mining (United Nations Economic Commission for Africa (UNECA), 2015). The economic progress of the nation at large, the Zimbabwean agricultural sector faces financing challenges, particularly access to bank credit. When the potential demand for credit in agriculture in the US$326 million and US$459 million in the year 2010, commercial banks only availed US$326 million, resulting in a US$223 million shortfall to the existing customer base (Vitoria, Mudimu, &Moyo, 2012). However, the availed US$326 million credit is purported to have generated approximately US$2 billion worth of agricultural output.

Loans to the agricultural sector also comprised only 19% of the US$3.8 billion availed by the banking sector since the inception of Mechanization and Conservation Agriculture for Sustainable Intensification (FACASI), 2015). Commercial banks’ average agricultural loan portfolios became subdued in the post-land reform period (between the year 1999) compared to the pre- and post-independence period (between 1975-1999), as they fell below the 20% threshold recommended by the Reserve Bank of Zimbabwe (RBZ) (2006, 2016, 2019). Such low investments in agriculture by African countries are attributed to the exposure of the agricultural sector to weather vagaries, low or no collateral by the farmers due to the insecurity of land tenure, market and price risks, political interferences, weak legal systems, and harsh economic conditions in the country (Masiyandima et al. 2011; Nyamwasa and Masanda 2013; Vitoria et al. 2012). Access to agricultural finance is a major stimulus for agricultural development, whose deficiency is a constraint to productivity and income generating opportunities for rural farm households (Qwabe, 2014). The International Finance Corporation (IFC) (2014) underlined the role of agricultural finance in enabling farmers to adopt inputs and technologies that enhance their productivity, income and livelihoods. Financial capital is also a major stimulant for agricultural development (FACASI, 2015). Agricultural financing is the economic study of the acquisition and use of capital in agriculture, which deals with the supply and demand for funds. It deals with the financial aspects of a farm business, encompassing both the macro and micro finance aspects of agricultural economy (Pandey, 2008). According to the IFC (2015), agricultural finance should be perceived as the full range of financial activities involved in getting agricultural products and services through different production phases until they are delivered to the final consumers. In this study agricultural finance is perceived as the provision of diverse financial services like loans, leasing, payment services, savings and crop and livestock insurance by banks for agricultural production, processing and marketing, taking the full view as defined by the IFC (2015). A few studies (Masiyandima, Chigumira and Bara, 2011; Vitoria, Mudimu and Moyo, 2012; FACASI, 2015) have explored the participation of banks in agricultural financing in Zimbabwe. However, a lack of studies and the focus on the current status of agricultural financing in Zimbabwe, especially under the current economic hardships that the country is facing during austerity measures. This study, therefore, seeks to explore the status of agricultural financing by commercial banks in Zimbabwe, focusing more on the supply of term loans to the sector.

MATERIALS AND METHODS

The study was underpinned by the pragmatism research philosophy, which advocates for the use of mixed methods in research. Therefore, both quantitative and qualitative approaches in mixed methods were designed in this study. The study was conducted between August and December 2019 in Harare, the capital city of Zimbabwe where all of the targeted commercial banks’ head offices are located. A cross-sectional survey of 12 registered and operating commercial banks in Zimbabwe was done to establish their involvement in agricultural financing, and the magnitude of their participation in terms of total loans that they advance to the sector. In order to understand the farmers’ perceptions on the reasons put forward for that position, the study sought to probe the local banks’ perceptions on the reasons put forward for that position. Hence, the study sought to locate the local commercial banks’ targeted clientele and the various agricultural financing tools that they offered to them. All the 12 commercial banks were targeted as part of the study’s sample. A pre-tested structured questionnaire, which was administered by interviewers, was used to collect quantitative data. A pre-tested semi-structured interview guide was also used to collect qualitative data for the study. Bank credit officers who worked in the commercial banks’ agribusiness units were the targeted respondents for the study. The Status of Agricultural Financing by Commercial Banks in Zimbabwe. However, a lack of studies and the focus on the current status of agricultural financing in Zimbabwe, especially under the current economic hardships that the country is facing during austerity measures. This study, therefore, seeks to explore the status of agricultural financing by commercial banks in Zimbabwe, focusing more on the supply of term loans to the sector.

RESULTS AND DISCUSSION

Out of the 12 targeted bank credit officers, each from the 12 operating registered commercial banks in Zimbabwe, only 8 participated in the questionnaire survey. The study therefore achieved a 67% response rate. On the other hand, data saturation, a point where no new knowledge was being generated from the interviews (Rodrigues et al., 2017), was reached after interviewing 7 bank credit officers. Consequently, a total of 7 commercial banks participated in oral interviews. However, in spite of scoring a lower questioner response rate than desired, the researcher was satisfied with successfully obtaining cooperation from more than half of the operational registered commercial banks in Zimbabwe. A Howardian interview guide to collect qualitative data for complementing the quantitative data helped the researcher to access richer and in-depth data pertaining to various aspects of interest on the status of agricultural financing in Zimbabwe.

Commercial Banks’ Participation in Agricultural Financing in Zimbabwe

The study revealed that they were involved in agricultural financing in Zimbabwe. Several studies (FACASI, 2015; Vitoria et al., 2012) also confirm the participation of most commercial banks in agricultural financing in Zimbabwe. However, these studies were mainly based on the perception of the participants that agricultural financing is the one that varies across individual banks, an aspect that is addressed in the ensuing sub-section.

Magnitude of Agricultural Financing by Commercial Banks in Zimbabwe

Actual lending to the agricultural sector differed across individual commercial banks in Zimbabwe according to the findings of this study (Figure 1). The study revealed that the highest agricultural loan portfolio of 60%, whilst CB1 had the least agricultural loan book of 6%. CB1 and CB2’s bank credit officers revealed during their oral interviews that agricultural lending formed their largest business portfolio. These findings correlate with Vitoria et al. (2012)’s study, which revealed that besides the government owned Agribank that had an agricultural loan book of 83%, all the other commercial banks in Zimbabwe dedicated less than 50% of their loans to the agricultural sector. However, higher agricultural loan portfolios exhibited by CB1, CB6, and CB8 may be attributed to their intensified participation in government driven credit programs like Command Agriculture. Besides, the timing of the study’s data collection exercise coincided with the start of the normal farming season in Zimbabwe (September/October) when banks would be disbursing more loans to the agricultural sector.

Source: Primary Data (2019)
A search text query for the word risk gave a picture of what the word was linked to in the oral interview discussions with the bank credit officers (Figure 3).

Table 1: Reasons for low financial investments in the agricultural sector by commercial banks in Zimbabwe

<table>
<thead>
<tr>
<th>Reason</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture is too risky</td>
<td>37.5</td>
<td>0</td>
<td>0</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>Farmers lack acceptable collateral</td>
<td>37.5</td>
<td>25</td>
<td>25</td>
<td>12.5</td>
<td>0</td>
</tr>
<tr>
<td>Lending rates are unprofitable</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>Mismatch between deposits received and loans</td>
<td>25</td>
<td>25</td>
<td>0</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>High transaction costs of servicing farmers</td>
<td>0</td>
<td>25</td>
<td>0</td>
<td>62.5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Source: Primary Data (2019)

A text search query for the word risk gave a picture of what the word was linked to in the oral interview discussions with the bank credit officers (Figure 3).

Figure 3: Word tree output for the word “risk”

Land tenure risk was mentioned for 13 times by 5 bank credit officers as a hindrance to the financing of agriculture in Zimbabwe (Figure 3). According to CB1, “Government policy on land tenure exposes the banking sector to risk because a few farmers have 99-year leases and the property rights are totally unclear.” These findings are confirmed by Richardson (2005), whose study revealed that former white commercial farmers who possessed secure freehold land titles to their farmland had unparalleled access to bank credit finance before the Fast Track Land Reform compared to the new indigenous farmers. Another study by Mohamed (2003) on smallholder farmers and artisanal fishermen in Zanzibar, Tanzania, also revealed that the lack of title deeds among the farmers accounted for their non-qualification for bank loans. Banks consequently had to cushion themselves against the land tenure risk.

Weather risk is another key theme that emerged from the study’s interviews with the commercial banks’ credit officers (Figure 2). The word “weather” was mentioned 6 times by 5 bank credit officers. The word tree output (Figure 3) shows that commercial banks were reluctant to lend to the agricultural sector because of its exposure to weather risks and vulnerability to climate change and weather vagaries. According to the bank credit officers, the effect of weather and climate change was worsened by the dependence of most farmers on dryland farming or rain-fed agriculture in Zimbabwe. According to CB2, “Vagrancies of the weather are more frequent and impact the farmers due to the vagaries of climate and weather vagaries. According to the bank credit officers, the effect of weather and climate change was worsened by the dependence of most farmers on dryland farming or rain-fed agriculture in Zimbabwe. According to CB2, “Vagrancies of the weather are more frequent and impact the farmers due to the vagaries of climate and weather vagaries.”

The main challenge of collateral in the absence of legal title is that not all property rights are acceptable as collateral. The Ministry of Agriculture (2013) avers that collateral is problematic to the agricultural sector, but only become so when they are large, cannot be anticipated and do not reflect market fundamentals (FAO et al. 2011). According to Davis (2011) some actors in the agricultural sector actually realize benefits from increased intra-annual food prices, which enable them to recuperate their operational costs. The researcher is however yet to come across literature that directly links high commodity price periods with increased bank credit supply to farmers in the developing world context.

Liquidity risk was also discussed as another cause of limited financial investments in agriculture by banks in Zimbabwe (Figure 2). According to CB2, “Depositors have generally lost faith in the banking system as a whole, and are therefore reported to make longer-term deposits that can be advanced to deficit units like agriculture.” As a result, banks are competing aggressively for offshore financing, which is in most cases difficult to access because of the negative perception by the country due to political and economic instability after the land reform program.” CB2 therefore argued that it may not be a matter of choice that agriculture is not receiving the level of financial investments that it deserves as the pillar of the Zimbabwean economy, but that banks themselves are not liquid enough to lend as much as possible to the sector. Vitoria et al. (2012) confirm that liquidity constraints have affected most banks’ agricultural loan books, thus restricting credit to the sector. Similarly, the United Nations (2014) asserts that the liquidity constraints prevail within the local financial markets, and have resulted in high and uncompetitive interest rates.

b) Local farmers lack acceptable collateral

The majority (62.5%) of the commercial banks under study agreed that they were reluctant to lend to agriculture in Zimbabwe because local farmers lack the acceptable collateral (Table 1). In 25% of the banks the attitude was neutral whilst 12.5% disagreed with the statement. This shows that most local commercial banks are reluctant to finance the agricultural sector in Zimbabwe because local farmers lack acceptable collateral. Masiyandima et al. (2011) support these findings by revealing that the land offer letters held by most farmers in Zimbabwe are not recognized as proof of land ownership by commercial banks and cannot be used as collateral for securing borrowing. The same study by Masiyandima et al. (2011) also revealed that the lack of collateral accounts for 60% of the agricultural loan applications rejected by commercial banks in Zimbabwe, validating further this study’s findings. Also supporting these findings, the Inter-Ministerial Task Force (IMT) Technical Committee (2016), revealed that local banks are still reluctant to lend even farmers who hold 99 Year Leases because the leases cannot be transferred to third parties in case of default, which makes them unacceptable as collateral. The Ministry of Agriculture (2013) equally avers that local commercial banks gradually withdrew their outreach in rural areas where most farmers reside, citing the main challenge of collateral in the absence of legal title to land. Moreover, Richardson (2005) revealed that the loss of property titles by new farmers in Zimbabwe limited the amount of borrowing and disrupted the banking sector as individuals could no longer pledge their property as collateral for loans. Banks consequently became wary of the possibility of losing their investments (Vitoria et al. 2012) as confirmed by this study. Beyond Zimbabwe, Chandio et al. (2018)’s study in Pakistan also confirms that smallholder farmers in the Sindh Province had limited access to bank credit because they lacked the collateral that was required by the banks.

c) Lending rates are unprofitable

The majority of the commercial banks (75%) disputed that unprofitable lending rates prevented them from making financial investments in the agricultural sector in Zimbabwe (Table 1). The study also confirmed that during the implementation of the Agricultural Sector Productivity Enhancement Facility (ASPEF) program in Zimbabwe, banks were dictated by the government to charge interest at low and uncompetitive rates of 20% per annum when inflation was running at approximately 58%, which repelled most banks from participating in agricultural financing programs. The removal of interest rate ceilings by the RBZ in the Zimbabwean financial system may help to explain the findings of this study because local banks are now at liberty to charge interest rates that they deem profitable for their lending businesses. Moreover, available literature suggests that interest rates charged by banks in Zimbabwe to the agricultural and agribusiness sectors have always been astronomical, prohibitive and only affordable to higher income earners (Vitoria et al. 2012). The United Nations (2014) also confirms that interest rates are high and uncompetitive in Zimbabwe as a result of the shortage of funds in the market. Besides, local banks are also purported to have a limited incentive to focus on the farmers’ market, especially smallholders, unless it includes higher risk premiums and greater collateral (Vitoria et al. 2012).

Despite having the majority of the commercial banks disputing that lending to the agricultural sector is unprofitable, it was worthwhile for the study to discuss the minor themes that emerged from the interview discussions with the few banks (25%) that argued otherwise. Results from the questionnaire...
survey show that 2 banks strongly agreed that lending rates on the agricultural sector in Zimbabwe are unprofitable (CB1 and CB2) (Table 1). Their arguments were centred on the high deposit interest rates on loans charged today could easily become totally unprofitable tomorrow. Therefore, the two banks argued that it could be wiser for a bank to withhold making financial investments in the agricultural sector until economic stability is restored in the country. The issue of costs was initially discussed from the demand side (the farmer’s side). According to CBI, “Over and above the financing costs like establishment fees, insurance costs of the pledged collateral, facility costs and conveyancing costs, 2% tax is also charged on all transfers as part of the government’s current austerity measures.” All these costs, according CBI, were deducted upfront from the loan amounts applied for by the farmers. Therefore, given the small loan amounts that the majority of farmers usually sought from the banks, the large costs incurred that could not make any meaningful returns when injected into their agricultural enterprises. CBI ultimately stressed that it was not viable at the onset for the bank to lend to the farmers under such circumstances.

On the other hand, CB1 highlighted that, “Farmers are currently facing increases in seed, fertilizer, chemical, labor and utility costs like electricity and water under the prevailing hyperinflation in the country.” These high costs were argued to be a serious funding mismatch. Hence, Zimbabwe commercial banks are reluctant to lend to agriculture because they have no capacity to service the sector’s longer-term financing needs due to the short-term nature of deposits that they also receive.

d) Mismatch between deposits received and loans required

Pertaining to the presence of a mismatch between the short-term nature of deposits received by banks and the long-term nature of loans sought by agricultural sector clients as postulated by some studies in Zimbabwe, 50% of the banks agreed, whilst the other 50% disagreed (Table 1). Since half of the banks agreed that the tenure mismatch between deposits received and loans required by the agricultural sector is a serious funding mismatch, hence, the study established that high transaction costs of servicing farmers do not contribute to local commercial banks’ low financial investments in the agricultural sector in Zimbabwe. These findings contradict most of the available literature in the country. According to Yaron (1992), geographic dispersion of farmers and their poor organization make their monitoring costly to the banks to provide the longer-term finance needed for infrastructural development, leasing, recapitalization and expansion projects in sectors like agriculture without creating a serious funding mismatch. Hence, Zimbabwe commercial banks are reluctant to lend to agriculture because they have no capacity to fulfill the sector’s longer-term financing needs due to the short-term nature of deposits that they also receive.

e) High transaction costs of servicing farmers

The majority of the banks (75%) disagreed that high transaction costs deterred them from serving the agricultural sector in Zimbabwe (Table 1), whilst only a minority (25%) agreed. Hence, the study established that high transaction costs of servicing farmers do not contribute to local commercial banks’ low financial investments in the agricultural sector in Zimbabwe. These findings contradict most of the available literature in the country. According to Yaron (1992), geographic dispersion of farmers and their poor organization make their monitoring costly to the banks to provide the longer-term finance needed for infrastructural development, leasing, recapitalization and expansion projects in sectors like agriculture without creating a serious funding mismatch. Hence, Zimbabwe commercial banks are reluctant to lend to agriculture because they have no capacity to fulfill the sector’s longer-term financing needs due to the short-term nature of deposits that they also receive.

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This was also purported to negatively affect their ability to repay the advanced loans. Hence, the bank argued that it was wiser for the banks to withhold the financing of agricultural projects under such circumstances. These arguments by the banks showed that the increased costs faced by farmers negatively affected their income generating capacity, which also negatively affected their loan repayment ability. Mayowa (2015) and Odu et al. (2010)’s studies in South Africa and Ghana respectively, confirm that high income from farming activities is preferred by banks considering that it acts as a guarantee/ assurance that a farmer would be able to viably repay the loan.

The Status of Agricultural Financing by Commercial Banks in Zimbabwe

The findings presented in Table 2 show that 7 out of 8 commercial banks under study offered value chain, invoice financing, and overdraft facilities to the agricultural sector in Zimbabwe. Available literature confirms that value chain financing, particularly contract farming, is popular in Zimbabwe as banks attempt to manage around the land tenure and collateral risks associated with financing local farmers directly (Winn et al., 2009). However, it was observed that the tenure mismatch between deposits received and value chain financing in the Zimbabwean banking sector, Vitoria et al. (2012) also revealed that out of the US$236 million bank credit supplied by banks in the year 2010, 70% was supplied to 300 000-350 000 smallholder contract farmers of cotton and tobacco. The Zimbabwe Agricultural Development Trust (ZADT) (2017), which funds smallholder farming in Zimbabwe through the Credit for Agricultural Trade and Expansion (CREATE) fund that is mobilized through 13 financial institutions (8 banks and 5 Micro Finance Institutions (MFIs)), also reported that the majority of smallholder farmers accessed funding under its programs through value chain actors.

Table 2: Agricultural Financing Tools Offered by Commercial Banks in Zimbabwe

<table>
<thead>
<tr>
<th>Type of Financing</th>
<th>Number of Commercial Banks Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value chain finance</td>
<td>7</td>
</tr>
<tr>
<td>Invoice finance</td>
<td>7</td>
</tr>
<tr>
<td>Overdraft facilities</td>
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</tr>
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<tr>
<td>Warehouse receipts</td>
<td>5</td>
</tr>
<tr>
<td>Insurance</td>
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</tr>
<tr>
<td>Leasing</td>
<td>2</td>
</tr>
<tr>
<td>Pre- and post-shipment finance</td>
<td>1</td>
</tr>
<tr>
<td>Letters of credit</td>
<td>1</td>
</tr>
</tbody>
</table>

The Status of Agricultural Financing by Commercial Banks in Zimbabwe

The findings presented in Table 2 show that 7 out of 8 commercial banks under study offered value chain, invoice financing, and overdraft facilities to the agricultural sector in Zimbabwe. Available literature confirms that value chain financing, particularly contract farming, is popular in Zimbabwe as banks attempt to manage around the land tenure and collateral risks associated with financing local farmers directly (Winn et al., 2009). However, it was observed that the tenure mismatch between deposits received and value chain financing in the Zimbabwean banking sector, Vitoria et al. (2012) also revealed that out of the US$236 million bank credit supplied by banks in the year 2010, 70% was supplied to 300 000-350 000 smallholder contract farmers of cotton and tobacco. The Zimbabwe Agricultural Development Trust (ZADT) (2017), which funds smallholder farming in Zimbabwe through the Credit for Agricultural Trade and Expansion (CREATE) fund that is mobilized through 13 financial institutions (8 banks and 5 Micro Finance Institutions (MFIs)), also reported that the majority of smallholder farmers accessed funding under its programs through value chain actors.

Table 2: Agricultural Financing Tools Offered by Commercial Banks in Zimbabwe

<table>
<thead>
<tr>
<th>Type of Financing</th>
<th>Number of Commercial Banks Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value chain finance</td>
<td>7</td>
</tr>
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</table>

In value chain financing with large corporates like Norton and CB1, 44% of the banks reported that they intended to target farmers with title deeds or lease agreements. This trend was observed to be paid through the lending bank, acted as security to the lenders, hence their reluctance to serve them. CB2 further revealed that lack of capacity issues explained why the bank closed its branches in most rural parts of the country where it used to operate serving farmers before the FTLRP.

Alternative Agricultural Financing Tools Offered by Zimbabwean Commercial Banks

Overdraft facilities were also offered by 7 out of the 8 commercial banks under study (Table 2). The banks revealed that they offered overdraft facilities to large corporates and loyal highly collateralized customers in the agricultural sector, securing small-scale loans required. In their findings, Masiyandima et al. (2011)’s study revealed that the Zimbabwean money market could only raise short-term loans like overdrafts for working capital and seasonal cropping in the agricultural sector. Vitoria et al. (2012) also confirmed that overdraft facilities were offered by banks like NMB, Methbank, MBCA (now Nedbank) and Ecobank to the agricultural sector in Zimbabwe. However, the study revealed further that the findings of CAFAS (2015) also postulated that banks like CBZ, MBCA, Agribank, and ZIBank offered term loans through their agribusiness units, targeting farmers with title deeds or lease agreements. This shows that smaller farmers were excluded from accessing the term loans. Warehouse receipts were also offered by 5 out of 8 commercial banks under study (Table 2). The potential benefits of warehouse receipts may be explained by the fact that they lessen risk to the lender because the farmer’s stored/warehouse product (for example, maize and wheat) awaiting sale will be garnished. The payments will be made once the crops are harvested. The study also established that 5 out of the 8 commercial banks offered agricultural insurance to farmers in Zimbabwe (Table 2). According to the banks that offered agricultural insurance, farmers often only cover the crop or livestock and livestock insurance. However, the banks typically offered agribusiness insurance, which in itself acts as an insurance mechanism that minimizes the risk involved in invoice financing because the farmers would be borrowing to meet incidental expenses against already realized income (from already sold agricultural produce as evidenced by the invoice), but awaiting payment. Onumah and Mejerink (2011) confirm that invoice financing is sought by borrowers to ease their short-term liquidity constraints or cash/flow problems. According to the commercial banks, they were also keen to protect the financed invoices, which would be paid through the lending bank, acted as security to the lender. Miller and Jones (2010), who call this type of financing “receivables financing”, confirm that its security is provided by a financial institution and the borrower underwritten by the bank.

The Status of Agricultural Financing by Commercial Banks in Zimbabwe

The findings presented in Table 2 show that 7 out of 8 commercial banks under study offered value chain, invoice financing, and overdraft facilities to the agricultural sector in Zimbabwe. Available literature confirms that value chain financing, particularly contract farming, is popular in Zimbabwe as banks attempt to manage around the land tenure and collateral risks associated with financing local farmers directly (Winn et al., 2009). However, it was observed that the tenure mismatch between deposits received and value chain financing in the Zimbabwean banking sector, Vitoria et al. (2012) also revealed that out of the US$236 million bank credit supplied by banks in the year 2010, 70% was supplied to 300 000-350 000 smallholder contract farmers of cotton and tobacco. The Zimbabwe Agricultural Development Trust (ZADT) (2017), which funds smallholder farming in Zimbabwe through the Credit for Agricultural Trade and Expansion (CREATE) fund that is mobilized through 13 financial institutions (8 banks and 5 Micro Finance Institutions (MFIs)), also reported that the majority of smallholder farmers accessed funding under its programs through value chain actors.

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Only one bank (CB8) revealed that farmers applied for short-to-medium term loans of 91-180-days tenure, and fully met the demand for those loans as shown in Figure 5. Two banks (CB1 and CB3) also revealed that agricultural sector clients sought medium-term loans of 181-365-days tenure. The same banks also highlighted that they also offered these medium-term loans to their agricultural sector clients, thereby meeting their demand (Figure 5). Based on the study findings, it was established that there was a match between the demand and supply of short to medium-term agricultural loans in the Zimbabwean banking sector.

The results presented in Figure 5 also showed that medium to long-term loans of 1-3 years were sought in 3 of the 8 commercial banks under study, whilst a total of 5 out of the 8 commercial banks offered them to agricultural sector clients. Supply actually seemed to be outstripping the demand for these medium-term loans, which may point to a lack of awareness among local farmers on the term loan packages being offered by local commercial banks. On the other hand, long-term loans of more than 3 years were sought from 5 of the 8 commercial banks under study, whilst only 2 banks offered them to the farmers as shown in Figure 5. According to CB1, long-term loans sought by the majority of the farmers were mostly asset finance and capital expenditure (CAPEX) loans. CB1 also revealed that the scarcity of CAPEX loans was caused by the lack of property rights among farmers in the agricultural sector in Zimbabwe to secure borrowing, confirming findings and results shown earlier in the study. The bank however explained that such long-term loans could only be advanced to farmers if they were secured by off-farm collateral. The study therefore established that there was a mismatch between the demand and supply of long-term agricultural production loans in the Zimbabwean banking system as confirmed by various studies (Ministry of Agriculture, 2013; Vitoria et al. 2012).

Approval Status of the Majority of Agricultural Loan Applications by Farmers in Zimbabwe

Table 3 shows the loan approval status of the majority of the agricultural loan applications received by commercial banks that participated in this study. The commercial banks were asked if the agricultural loan applications that they received from farmers in Zimbabwe were mostly fully approved, partially approved or completely rejected, to which they responded with yes/ no responses as shown below.

The bulk of the agricultural sector loan applications were fully approved as confirmed by 7 out of the 8 commercial banks under study (Table 3). These results contradict Masiyandima et al. (2011), whose study revealed that the bulk of agricultural sector loan applications were rejected due to various reasons like lack of collateral, lack of own contribution, poor past performance and poor past loan record among others. According to CB1, “At the first stage of the loan application, a farmer receives the list of requirements for eligibility. Farmers who fail to meet the requirements are already screened out at this initial stage.” This explains why banks under study rejected a few loan applications as most of the farmers who reached the application submission stage would have met most of the loan requirements. On the other hand, CB4 expounded that, “Rejecting most loans would imply that the bank is targeting clients that are out of its risk appetite. Hence, its sourcing strategy is aligned to clients that are within its risk appetite, who are able to satisfy most of its lending requirements.” CB6 also confirmed that the final stages of the loan application process were reached by applicants who would have already gone through a thorough screening process. However, in agreement with Masiyandima et al. (2011), CB6 indicated that most loan applications fell along the way on the grounds of lack of collateral. According to the bank, this explained why it mostly scores a 98% success rate for the agricultural loan applications it receives. Only 2 banks (CB2 and CB3) highlighted that the bulk of the agricultural loan applications they received from individual farmers were completely rejected because they preferred to lend through well-established and highly collateralized value chain actors to lessen its exposure to default risk.

Zimbabwean Commercial Banks’ Target Clientele

Figure 6 shows the clientele targeted by the commercial banks that participated in this study.

The Status of Agricultural Financing by Commercial Banks in Zimbabwe

Large scale commercial farmers were also a popular clientele among the commercial banks, who were served by 4 out of the 8 commercial banks under study (Figure 6). CB4 explained that there is high customer loyalty among large farmers, which is limited in the Zimbabwean banking sector. However, the magnitude of actual financial investments in agriculture varied across banks. Average agricultural loan portfolios were higher than the majority of the statistics reported after the year 2000 by the RBZ and other available studies. However, current agricultural loan portfolios are still lower than the pre-land reform maximum achieved in 1999. Low investments in agriculture by local commercial banks were attributed to land tenure and weather risks, as well as lack of collateral among farmers. The hyper-inflationary environment in Zimbabwe also increased the farmers’ costs of production, thereby affecting their ability to repay loans. Value chain financing, bank overdrafts, invoice finance, warehouse receipts and term loans were the most popular agricultural financing tools offered by commercial banks in the Zimbabwean banking sector. There seemed to be an excess supply of medium-term loans to long-term banks by the commercial banks, as few farmers sought them. However, the demand for longer-term loans for capital expenditure remains limited in the Zimbabwean banking sector.

Table 2: Loan Tenure Sought from Banks vs Loan Tenures as a guarantor by settling the remaining or entire amount in credit purchases that their payment would be received in full

<table>
<thead>
<tr>
<th>Bank</th>
<th>Long-term (1-3 years)</th>
<th>Medium-term (91-365 days)</th>
<th>Medium-term (366-730 days)</th>
<th>Short-term (0-90 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank A</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Bank B</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Bank C</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Bank D</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Bank E</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Bank F</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Bank G</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Bank H</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

Note: The above table represents the loan tenure sought from banks vs loan tenures as a guarantor by settling the remaining or entire amount in credit purchases that their payment would be received in full.
commercial banks under study. However, the lack of collateral hindered most farmers from completing the loan application process. The commercial banks’ preferred clientele included suppliers, medium and large-scale commercial farmers. Small scale and smallholder farmers were excluded from financing programs by the majority of the commercial banks. Therefore, policy should address the issues surrounding land tenure in Zimbabwe because land tenure risk is the key obstacle to agricultural financing by local commercial banks. Irrigation infrastructure development should also be prioritized to eliminate the dependence by farmers on the risky rain-fed agriculture, which requires significant investments by commercial banks. Commercial banks should strive to match their financing packages with the actual needs of the farmers on the ground, for example, by providing more long-term loans to the sector. Value chain actors should be monitored to ensure that they do not charge exorbitant rates to farmers to ensure the growth and perpetuity of their agricultural enterprises in the long-term. Moreover, educational campaigns to local farmers should be intensified in order to improve their awareness of alternative financing tools that they can access from the financial institutions. Farmers are also implored to invest in off-farm collateral in the absence of legal titles to their land in line with what the banks want to ensure their improved access to bank credit. They should also strive to invest in cheaper irrigation infrastructure like boreholes and drip irrigation kits to lessen their exposure to weather vagaries like drought. Investments in irrigation infrastructure will also ensure agricultural production all year round, and thus improve the farmers’ performance and ability to access further financing.

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Reserve Bank of Zimbabwe (RBZ) (2019b) Monthly Economic Review.


ANALYSIS OF THE CHAIN OF THE BANANA INDUSTRY OF ECUADOR AND THE EUROPEAN MARKET

Eduardo Vaca, Norma Gaibor, Krisztian Kovács

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2CTAC, Department of Civil Engineering, University of Minho, 4800-058 Guimarães, Portugal;
3Department of Farm Management and Corporate Planning, Faculty of Economics and Business, University of Debrecen

Abstract: Bananas are among the four main crops in the world, including wheat, rice, and corn. It is the most exported fresh fruit in the world in terms of volume and value. The European Union (EU) is the largest banana importer globally with an estimated volume share of 33%. Ecuador is the top exporter since it is responsible for one-quarter of the world banana exportation. It represents 22% of total world exports, 27% of total agricultural exports in the country and 8% of the value of all exports (including oil). The present work analyzed the chain of the banana industry of Ecuador and its position in the EU market. A non-experimental empirical method with a quantitative and qualitative approach was used supported by scholarly literature and secondary research data collection. Results obtained show that the main countries destination shipped 87.8% of total bananas exported from Ecuador in the period of 2007 – 2017. The largest importer of Ecuadorian banana is the European Union (28.9%). In Ecuador, approximately 78% of the banana producers are small companies, by adding the medium ones 95.6% is reached. Thus, the production of bananas in the country is mainly based on the family economy. In 2019, the official banana box price for producers in Ecuador is USD 6.30. In the EU market, it can reach over USD 18.00. It suggested an unfair payment to small and medium producers.

INTRODUCTION

Globally, in the agricultural sector bananas are positioned fourth within world production rankings after rice, wheat, and maize and the fourth most important food crop among the world's least-developed countries with production of over 105 million tons per year (FAO, 2018a). It represents around 115 million metric tons annual production according to National Geographic, 2017. Through trade and supply, bananas make up a global $8.9 billion trade industry (Dadrasnia et al., 2020). It is the most exported fresh fruit in the world in terms of volume and value. As a highly traded commodity, the banana is an integral part of the global value chain. It is also an important commercial crop in developing countries due to the income and employment to rural populations generated. It is the most consumed fruit in Europe and North America. Ecuador is the top exporter since it is responsible for one-quarter of the world banana exportation (Iriarte et al., 2014).

There are more than 1000 varieties of bananas produced and consumed in the world. The Cavendish banana type is the most commercialized. It represents around 47% of total production. Approximately 50 billion tons of this variety is produced globally every year. The Cavendish banana is the most supplied to the US and European markets. It is more appropriate to international trade than other varieties as they are more resilient to the effects of lengthy travel (Israeli et al., 2017). It is important to note that 85% of banana production is consumed locally. It is basically for the larger

Keywords: Ecuadorian banana, value chain, fairtrade
(JEL Classification: Q13, M16, M21)
producer countries such as India, China, and Brazil, and in some African countries where bananas contribute significantly to diets of people. Meaning that only the rest,15%, is traded in the international market. In some of the most representative exporting countries, the banana production profit has an important weight in net agricultural production, as it is the cases of Ecuador where it is mainly for exportation (FAO, 2018b).

The banana exported from Ecuador is mainly ordered by very demanding markets in terms of quality, whose standards were achieved through the development of high technological levels in production, storage, and distribution. The banana production chain in Ecuador involves internal and external members (Medina, 2013). It is the reason why an analysis of the chain of the banana industry is required to understand, the role of every stakeholder and the establishment of the principal implications for economic and social sustainability. It should include producers, exporters, importers, and trade policies.

The sector of Fresh Fruit and Vegetable (FFV) in the EU is one of the most important categories for European supermarkets. bananas (10%) come third and are the main fresh fruit imported from outside Europe. However, consumer prices have stagnated or increased very slightly since 2001, where a banana price war between retailers has halved consumer prices. In contrast, wholesale prices have decreased by almost 25%, while retailers have increased their share of the banana value in most countries to between 36% and 43%. This decline in import prices has been transferred to all major countries supplying the EU, where the value left at the origin has fallen by 20% to 50% in real terms. This at a time of significant increases in both production and living costs, inputs, such as fertilizers and pesticides, have risen by up to 130%, while the costs of compliance with quality, sanitary and environmental standards for bananas entering the European market are incurred mainly by producers. For banana workers and farmers, themselves, food, health, education, and other living costs have rocketed in the period since 2001. A banana price war between retailers has halved consumer prices. In contrast, wholesale prices have decreased by almost 25%, while retailers have increased their share of the banana value in most countries to between 36% and 43% (BASIC, 2015).

The importance of the Ecuadorian banana trade justifies the study of the banana industry, its materials, cultivation, harvesting, processing, and selling (Mishra et al., 2018). The banana production chain in this country involves internal and external members. The producer can sell directly to the exporter or to an intermediary. In turn, exporters are intermediaries between producers and large international traders (except for Corporación Noboa, which is one of the five largest international traders in the world) and sells its product directly to the markets of the United States and Western Europe. The exporter and the intermediary are necessarily forced to sell their product to one of the large traders, which controls 90% of the world banana trade. The importer sells the product, either directly to the country of destination or to the wholesaler, who then sells it to the retailers. They are the final distributors to the different points of sale, from where the final consumer obtains the product. It worth to mention that in Ecuador the banana has an harvest (January to April) and low seasons (June to September) (Medina, 2013).

The Ecuadorian banana industry is particularly diverse in terms of farm size, the multiplicity of exporting firms and supporting industry. The banana plantation structure is based on small, medium, and large banana producers, according to the Ministry of Foreign Trade of Ecuador (MCE-Spanish acronyms), there are around 5000 private producers in the country (MCE, 2017). Approximately 78% of the banana producers are small companies, by adding the medium ones (>30 to ≤100 hectares) 95.6% is reached. Therefore, the production of bananas in the country is mainly based on the family economy and popular and solidarity economy. It makes this sector contributes to the respect of the large food and pastries.

It can also be noticed that the distribution of the range of the banana crop areas is concentrated at the extremes: Only 4.32% of the total registered producers control the 42.56% of the total registered area when it is higher than 100 hectares. While 77.80% of the registered producers control 21% of the total area when it is smaller than 30 hectares, Table 2. Additionally, according to data from the Under Secretary of Agriculture of Ecuador, in 2011 there were about 230,000 hectares of banana crops in the country, meaning that only around 78% are registered in the corresponding authority (Medina, 2013).

Analysis of the Chain of the Banana Industry of Ecuador and the European Market

The Association of Banana Exporters of Ecuador (A.E.B.E - Spanish acronyms) is a non-profit organization that groups the Ecuadorian banana export sector. Its main aim is to promote the integral development of the members, with the collaboration of entities from the public and private sector. It groups 30 national exporting companies that represent 97.10% of the total fruit sent by Ecuador to the world (AEBE, 2018).

The cost of banana production per hectare varies, depending on the farm size and yield level; the technologies used, and levels of inputs. There are two significant categories in bananas production. The first one is the high share of labor in total cost. It represents around 40% to 50% of the total cost for the small, medium and large farms. These high percentage shows the strong influence of direct or indirect labor in this sector which strongly affects the familiar economy of the rural areas as well as the urban region of the involved provinces and the country.

The second largest cost category in the production of bananas are the fertilizers, agrochemicals and inputs. It is 28% of the total cost production. This indicates the close dependence of banana management on large applications of fertilizers and pesticides to improve soil fertility and fight disease. For small scale farms (19%), the agro-chemicals expenditures are higher due to producers cannot use aerial spraying and need to do manual applications which are more expensive. On the other hand, fertilizer investment increase with farm size due to in large plantations the nutrients requirements and the average fruit harvest per ha is also higher (Ministry of Agriculture and Livestock database of Ecuador and FAO, 2016 report).

According to the Ecuadorian Association of Banana exporters (AEBE, 2018), in 2018 (January to November), around 320 million boxes of 18.14 kg each one has been exported. It is equivalent to approximately 5 million 800 thousand tons. The banana is shipped preferably from two ports in Ecuador, Puerto Guayaquil and Puerto Bolivar Table 3. The transportation in these ports has been as follows:

Table 3. Exports by the shipment port in Ecuador, 2018

<table>
<thead>
<tr>
<th>Port name</th>
<th>No. Boxes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puerto de Guayaquil</td>
<td>247,339.86</td>
<td>77.91</td>
</tr>
<tr>
<td>Puerto de Bolivar</td>
<td>70,120.874</td>
<td>22.09</td>
</tr>
</tbody>
</table>

Puerto de Manta

| Total          | 317,460.735 | 100     |

Source: (AEBE, 2018)

ECUADORIAN BANANA IN THE EUROPEAN MARKET

Banana production and yield data in Ecuador are shown in Table 4. The average in the last ten years is 8608895 MT and 35.38 MT/Ha, respectively.

Table 4. Ecuador banana production and yield, 2007 - 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Area Harvested (Ha)</th>
<th>Production (MT)</th>
<th>Yield (MT/Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>197410</td>
<td>6002302</td>
<td>30.41</td>
</tr>
<tr>
<td>2008</td>
<td>215521</td>
<td>6701145</td>
<td>31.09</td>
</tr>
<tr>
<td>2009</td>
<td>216615</td>
<td>7687324</td>
<td>35.34</td>
</tr>
<tr>
<td>2010</td>
<td>215647</td>
<td>7931060</td>
<td>36.78</td>
</tr>
<tr>
<td>2011</td>
<td>191972</td>
<td>7427776</td>
<td>38.69</td>
</tr>
<tr>
<td>2012</td>
<td>210894</td>
<td>7012245</td>
<td>33.25</td>
</tr>
<tr>
<td>2013</td>
<td>188658</td>
<td>5995527</td>
<td>31.78</td>
</tr>
<tr>
<td>2014</td>
<td>182158</td>
<td>6756254</td>
<td>37.09</td>
</tr>
<tr>
<td>2015</td>
<td>185499</td>
<td>7194431</td>
<td>38.79</td>
</tr>
<tr>
<td>2016</td>
<td>180337</td>
<td>6529676</td>
<td>36.21</td>
</tr>
<tr>
<td>2017</td>
<td>158027</td>
<td>6282105</td>
<td>39.75</td>
</tr>
</tbody>
</table>

Source: (FAOSTAT, 2019)
Latin America (excluding Mexico) plus the Caribbean have been the world banana exporters predominant (80%) in the last 10 years. Europe, Australia, and Oceania are not listed as exporters since their production is for domestic consumption. According to the Food and Agriculture Organization of the United Nations in 2017, the five biggest exporting countries ranked are Ecuador, Costa Rica, Guatemala, Colombia, and the Philippines (Figure 1). The main exporter is Ecuador, which accounted for an annual average of one-third of the total global banana export volume between 2007 and 2017 (FAOSTAT, 2019).

Figure 1. The biggest banana exporters worldwide (thousand tons), 2007 – 2017

Global import volumes of bananas reached around 18 million tons in 2018, 2% was increased compared to 2017. It was an estimated growth of 4% in the largest net importer, the European Union, and a 1% reduction in the United States (FAO, 2018a). In 2017, 17436.20 thousand tons of bananas were imported worldwide (Figure 2). The five main importers are the USA, EU, China, Japan, and Indonesia (Figure 3). These high percentages demonstrate the significant influence job generation in this sector which directly influence the familiar economy of the rural and urban areas involved with the banana activity. The second more important cost (MM) and 40.2% for large farms (LF) (Figure 3). These figures of the banana value chain will allow understanding the dynamic and interrelations between them. This analytical approach of the BVC includes the full range of activities that are required to bring a product from its conception to the supermarkets. Therefore, core concepts and data will be used in the chapters.

In Ecuador, 2018 ended with an annual growth of 5% above the 330 million boxes. The Minister of Agriculture declared that by 2019, the price that the exporter pays to the producer for the 19.45kg banana box is USD 6.30. However, the average price internationally paid per box amounts to approximately USD 10/box (AEBE, 2018).

MATERIAL AND METHODS

The present work is under non-experimental empirical method with a quantitative and qualitative approach since statistical data from the period to be evaluated will be used. The present project studies the current situation and analyzes the Banana Value Chain (BVC) in the EU import market. In order to develop the proposal aims, the theoretical approach of the BVC is employed. Knowing the involved actors and analyzing the different stages of banana production chain will allow understanding the dynamic and interrelations between them. This analytical approach of the BVC includes the full range of activities that are required to bring a product from its conception to the supermarkets. Therefore, core concepts and data will be used in the chapters.

The adequate control by the authorities about the fair payment to the producers makes the intermediaries and exporters take advantage and pay prices below the established limit by law. For this reason, the farmers have an unfair payment which affects their lifestyle. The present work also refers to the economic and social aspect of the chain generated by the banana production sector in the country. Therefore, a problem tree and SWOT analysis (Fred R. et al., 2017) of the Ecuador banana sector is carried out to be discussed as part of the results.

The SWOT analysis in general terms is a tool to identify the current situation of an organization. It is an attempt to reveal the strengths, weaknesses (internal factors), and opportunities and threats (external factors) which can be applied to the object of study. It is to estimate the background situation and analyze the best actions to improve it. Strengths are characteristics that help to have an advantage over a person or company situation. Opportunities are aspects that are looking for advantage supported by strengths. The weaknesses are negative factors that must be reduced. The threats are external factors that are obstacles to achieve our goals. The SWOT analysis is widely used for strategic planning of long-term and short-term development of an organization (Thamrin et al., 2017).

This study is supported by secondary research data collection, gather and examines numerous statistical data in combination with a valuation of empirical analytical approach, trying to get the best analysis possible. Not enough specific information about the banana sector in Ecuador from scientific articles can be found. Thus, the source of information is mainly the following official consulting Eurostat, European Commission, Food and Agriculture Organization of the United Nations (FAO), Banana Link, Ministry of Agriculture and Livestock (MAG) of Ecuador, Ecuadorean Association of Banana Exporters (AEBE), and literature review. For data processing, Microsoft Excel is used as a tool.

RESULTS AND DISCUSSION

The largest banana producing countries are not necessarily the largest banana exporting countries in the world. Countries such as India (26.75%), China (10.03%), Indonesia (6.29%) and Philippines (5.30%) are among the top five world producers. However, it is mainly for domestic consumption due to the high contribution to the diet of their people. On the other hand, Ecuador (5.51%) is also ranked at the top five world banana producers (FAOSTAT, 2019). But, 95% of banana production in Ecuador is for global exportation. 5% is considered as waste or banana that does not meet the requirements to be sold in the international market. It is sold in the local market, for the human, animal, and industrial consumption and an important part is often wasted on bananas waste farms (Acosta Povoa et al., 2018). According to the latest available data (FAOSTAT, 2019), the five largest banana exporting countries categorized are Ecuador (36%), Costa Rica (15%), Guatemala (13%), Colombia (10%), and Philippines (9%). Showing that Ecuador is positioned as the top leader.

Ecuador banana sector

As it was stated by some authors (AGROCALIDAD, 2017; Frutadeli, 2014; Villaobos, 2014; MCE, 2017), in terms of agriculture, Ecuador has a privileged position in the Earth. Due to the good agro-climatic conditions present in some regions of Ecuador make banana production accessible to the world the full year. The favorable climate and soil factors for growth, such as adequate light, deep soils with good structure and good internal drainage, which help in avoiding excessive use of agrochemicals, the country has an important advantage compared with other banana-producing countries.

The banana value chain (BVC) involves several stages and stakeholders. It starts from plantation workers and/or producers until the fruit is exhibited in the market ready for consumption. About the shared percentage in the value given to each participant through the BVC is shown in Figure 4.

3. Over the time, the banana economy has been one of the key examples of unfair trading and power concentration in the hands of the biggest retailers in EU; 40% of the fruit value belongs to them. It has direct consequences on the lifestyle of thousands of workers and banana producers and workers who get the lowest income in the chain, 4%, and 12%, respectively. Recently, the growing market power of retailers and competition between large fruit companies has induced banana chains to be even more determined by supermarkets, especially in Europe.

Figure 3. Share of the banana value chain by value in %, 2017

Source: Calculated by the author (National Geographic, 2017)

About the banana producers and exporters in Ecuador, Figure 5 shows, there is no monopoly, nor oligopoly in Ecuador, because the composition of percentage participation of banana exporting companies is represented by a significant number of companies (56%) and not by the five main ones.

Figure 4. Main Ecuadorian companies exporting bananas, 2018

Ecuadorean Banana in the European market

The listed 15 countries (Figure 5) shipped 87.8 % of total bananas exported from Ecuador in the period of 2007 – 2017. The largest importer of Ecuadorean banana is the European Union (28.9%), followed by the Russian Federation (23.4%), and United States (15.8%).

Figure 2. Cost of production by banana farm sizes in Ecuador in %

Source: Calculated by the author (FAO, 2016)

In Ecuador, 2018 ended with an annual growth of 5% above the 330 million boxes. The Minister of Agriculture declared that by 2019, the price that the exporter pays to the producer for the 19.45kg banana box is USD 6.30. However, the average price internationally paid per box amounts to approximately USD 10/box (AEBE, 2018).

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Source: Calculated by the author (FAO, 2016)
The national yield average is lower compared with Costa Rica (52.60 Tons/ha) and Guatemala (44.50 Tons/ha) in the same period of time (FAOSTAT, 2019). In addition to the mentioned in the SWOT analysis in Table 5. Some other strengths and weaknesses can be cited. By way of strengths:

- There are constant searching and opening of new markets for the positioning purpose.
- The Dale Foundation and Wong Foundation are non-profit organization supplement education and health in the rural sector supported by some banana producers (Medina, 2013).
- About the weaknesses:
  - The confrontation among producers, exporters, politicization of activity
  - There are many small defenseless producers subjected to intermediaries.
  - Child labor can still be found in a part of the banana plantations.
  - Breach of social and environmental aspects

**Table 5. SWOT analysis of the Ecuador banana sector**

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimum Agri-climatic conditions</td>
<td>Most of the producers are at a small level</td>
</tr>
<tr>
<td>Full year production capacity and extensive banana crop areas</td>
<td>Lack of technology investment (irrigation systems), in the small/medium producers</td>
</tr>
<tr>
<td>Good roads quality for banana transportation until the main ports</td>
<td>Overproduction of banana</td>
</tr>
<tr>
<td>High-quality control and accomplishment in accordance with international requirements</td>
<td>High inputs costs to be used in the production process</td>
</tr>
<tr>
<td>Availability of labor workforce for production and harvest</td>
<td>Payment below the official price to producers, affect the income of these families working in this activity</td>
</tr>
</tbody>
</table>

**OPPORTUNITIES**

- The trade agreement options with other countries.
- Growth in banana demand worldwide.
- Recognition for the quality of the Ecuadorian banana in the world.
- Strong organization by exporters.
- Greater logistics development in packaging and storage by exporters.

**THREATS**

- Climatic changes affect the production (floodding of crops by growing rivers near to plantations). Ecuadorian bananas are more expensive in comparison with competing countries.
- Strong competition from several countries regarding banana sales. Greater access to production technology by competing countries
- Ecuador has fewer trade agreements with the importer countries globally, in comparison with the other larger banana exporters.
- Better organization in groups of producers from competing for producing countries.

Source: Calculated by the author (European Commission, 2019)

Source: Calculated by the author from (FAOSTAT, 2019)

Ecuador, Costa Rica and Colombia continue to dominate the market, by contributing each with 20% of the total imports of the European Union. The tariff rates agreed under the Central American and Andean bilateral agreements were scheduled to be reduced. Shipments from Ecuador were decreased to 96EUR/ton in 2018 and 98EUR/ton from on 1 January 2019 onwards. It helped entries to the EU market at a reduced price. As a result, Ecuador expected to account for a volume share of nearly 40% of global shipments in 2019 (FAO, 2018a). On the other hand, in 2018, Ecuador ended with an annual growth of 5%. Figure 7 shows that Costa Rica had the most important growth in the EU market in the last decade. It is registered import values of 459 and 743 million euros, in 2009 and 2017, respectively.

**CONCLUSIONS**

The main objective of this study was to analyze the chain of the banana industry of Ecuador and the exportation to the EU market. After the analysis based on the data and figures which showed that global banana trade is dominated by South American countries, particularly Ecuador and the European Union is the biggest banana importer from this country. It is demonstrated a significant relationship between both parties and special importance for the banana industry in Ecuador.

There is an unequal concentration of resources which causes a significant difference in the social strata of the Ecuadorian coast families, it is especially in rural areas. Hence, the government should invest in technology and agricultural inputs aimed at small and medium producers, or so the supply of microcredits in order to have more opportunities for them to develop. Banana crops depend on the technology degree implemented. Between one and three direct workers are needed per hectare and from 1.5 to 10 indirect jobs per hectare.

Ecuador’s main competitors in the world market are Costa Rica, Colombia, and Guatemala, which have several advantages, including higher productivity, stability in the
relationship between producers and exporters, long-term contracts and the appropriate political intervention in the sector. Ecuador must work hard to improve this problem by taking correct decisions and measures that make this country more competitive and efficient, in order to continue being the world's largest exporters of fruit.

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FAOSTAT. (2019). FAOSTAT.


PROFITABILITY OF CASSAVA PRODUCTION IN THE ASHANTI REGION OF GHANA

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2University of Ghana; Department of Agriculture Economics and Agribusiness

Abstract: Cassava is a crop that is massively produced and consumed in Ghana even though it is produced by subsistence farmers. The aim of this study is to analyze the cost and returns of cassava farmers. Farmers profitability was accessed using the gross margin, net present value and the benefit cost ratio. SWOT analysis was conducted to access challenges faced by cassava farmers. Data was collected by personal interview from fifty (50) cassava growing farmers in the Sekyere East District of the Ashanti Region, Ghana. The Costs and returns analysis show gross margin of USD 22.75 per acre. It was concluded that cassava is cultivated for both consumption and revenue. Even though there is low investment in capital in cassava production, it helps farmers to make use of available resources (personal savings, land and labour) which would have been idle. Further should compare profitability of crops that compete for use of farmers land.

Keywords: Economics Feasibility, Cassava farmers’ profitability, Farmers SWOT analysis, Gross margin, Cassava production challenges

JEL Classification: Q13, Q19

INTRODUCTION

The use of improved cassava seeds reduce poverty and increase consumption expenditure (Wossen et al., 2019). IITA/CEDP beneficiary farmers got twice the harvest of non-beneficiary farmers with the use of improved seeds (HarvestPlus, 2010). The use of improved inputs for agriculture production in the developing countries however is low. This leads to low productivity which results in low income of farmers. Adebayo et al. (2010) claim that farmers input in cassava production is low. Coupled with this is high perishability of cassava (Kwasi & Kobina, 2014). The economic cost of cassava loss is $300ha-1 (Danilola et al., 2011) Where, - GM = Gross Margin - TR = Total Revenue - TVC = Total Variable Cost (TVC) makes up the Gross Margin (GM). It evaluates the gross profitability of a given enterprise. It is useful where the value of the fixed cost is negligible as it is the case with cassava production (Nandi et al., 2011), which is operated mostly at small scale level. Therefore, Gross Margin is given as: GM = TR - TVC (Odoemenem & Otanwa, 2011; Nandi et al., 2011) Where, - GM = Gross Margin - TR = Total Revenue - TVC = Total Variable Cost.

The net present value shows the cash inflows less the cash outflow within the project period. The benefit cost ratio shows the ratio of cash inflow to the cash outflow. Assumption: Production is projected over a period of 4 years. The is because land for cassava is mostly left to fallow after four years. Interest rate is 12%. This is because most project usually uses a discount rate between 8 and 12 (Langat et al., 2015; Mensah, 2001)

RESULT AND DISCUSSION

From the 50 farmers interviewed about four fifth (78%) had a household size of at least 4 (Table 1). This emphasis explaining the importance of cassava to farmers. About half of farmers (46%) have no formal education but more than four fifth of farmers (86%) have more than five year of farming experience (Table 1). This might explain why farmers skills depend on low input for farming. About 80% of farmers hire labour on their farms (Table 1).

Use of cassava tubers
An acre of land yield about 6000kg of cassava. The two major use of cassava is for sale (45%) and consumption (34%) (Table 1).

Cassava serves as a food security crop as almost half of cassava (47%) is used for consumption and gift. From Figure 1, about half (45%) of cassava is sold for revenue.
This implies that increase in production of cassava would increase revenue gotten. More than a third (34%) of cassava is consumed by farmers. Cassava serves as a food security as planting, weeding and harvesting of cassava roots. Expenditure on tools (hoes, cutlasses, baskets and sacks) was as low at USD 50.05, representing 13.0% of total cost (Table 2).

<table>
<thead>
<tr>
<th>Table 2: Gross margin of cassava production</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>Sales from cassava roots</td>
</tr>
<tr>
<td>Sales from cassava sticks</td>
</tr>
<tr>
<td>Total revenue</td>
</tr>
</tbody>
</table>

Labour cost shared the highest amount (35.7%) among total cost (Table 2). Labour is usually used for the performance of agronomic practices and harvesting cassava (Masamha et al. 2017). Labour cost is followed by transportation cost accounting for about (22.6%) of the total production cost (Table 2). Inadequate investment in technologies is dominant in cassava production which if rectified might lead to a double increase in productivity.

The costs and returns analysis show gross margin of USD 227.5 per acre (Table 2). This means that a farmer get 22.75 Ghana cedis at the end of the year. After four years when the land is allowed to fallow, a farmer gets USD 77.40 (Table 3).

<table>
<thead>
<tr>
<th>Table 3: Financial analysis of cassava production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>1 2019</td>
</tr>
<tr>
<td>2 2020</td>
</tr>
<tr>
<td>3 2021</td>
</tr>
<tr>
<td>4 2022</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

A USD 1 invested into the cassava industry gives USD 1.06 at the end of four years.

**SWOT analysis of cassava farmers**

The SWOT is viewed according to their strength, weakness, and opportunity and threats. The results in Table 4 are ranked according to their importance. Considering the SWOT, the results show that a farmer exemplifies many prospects, and has its strength and weaknesses. Their main strength is their personal savings and high market penetration (Table 4). With regard to resources, cassava farmers have available land and labour.

<table>
<thead>
<tr>
<th>Table 4: SWOT Analysis of the Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRENGTHS</td>
</tr>
<tr>
<td>Have personal savings to invest</td>
</tr>
<tr>
<td>High market penetration</td>
</tr>
<tr>
<td>Land is freely given through inheritance</td>
</tr>
<tr>
<td>Availability of labour</td>
</tr>
</tbody>
</table>

**OPPORTUNITIES | THREATS**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Low demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassava is regarded as a hunger security crop because of the 1983 hunger</td>
<td></td>
</tr>
</tbody>
</table>

Farmers weakness of low accounting and soft skills and low bargaining power (Table 4) can be traced to their low level of formal education (Table 1). Farmers can use their high market penetration to increase their bargaining power by forming co-operatives. Cassava farmers had many opportunities as regard to their cassava production. The 1983 hunger in Ghana has revealed the importance of cassava as a resistant crop in Ghana. Ghanaians have thus developed a taste for cassava and its products. Cassava is periodically demanded by consumers. This has increased the involvement of donors in supporting cassava production. This conforms with findings that donors play a critical role in supporting the cassava value chain (Poku et al.2018).

Cassava farmers had threat of less concern of government in cassava production (Table 4). Formation of co-operatives by farmers would increase their visibility to government.

**CONCLUSION**

From this research, it can be concluded that cassava is cultivated for both consumption and revenue. Even though there is low investment in capital in cassava production, it helps farmers to make use of available resources (personal savings, land and labour) which would have been idle. Further studies should compare profitability of crops that compete for use of farmers land.

**REFERENCES**


Determinants of Consumers’ Purchase Intention for Local Organic Food in Urban Sri Lanka

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Abstract: Organic food marketing has currently become one of the most developing markets around the world, including Sri Lanka. Thus, the main aim of this study was to recognize the determinants of the purchase intention for local organic food among urban Sri Lankans. A consumer survey was conducted covering capital cities of six urban districts in Sri Lanka; Colombo, Galle, Gampaha, Kandy, Kurunegala, and Ratnapura using a sample of 600 consumers, from December 2016 to May 2018. Out of the 600 consumers, only 114 were purchasing organic food by that time, and those 114 consumers were chosen as the sample for this study. Descriptive statistics, principal component analysis, and multiple linear regressions were used as data analysis techniques. According to the results, majority of the respondents belongs to the 31-45 year age category. While most respondents had an education up to GCE Advanced Level, significant percentages of respondents were educated up to graduate and post-graduate levels. Also, most of the respondents received a monthly total income in between Sri Lankan Rupees 85,001 and 102,000 (approximately US dollars 473 - 900). Although one-fourth of the consumers are purchasing organic food at that time, a higher number is willing to buy them in future. As per the principal component analysis, health and environment consciousness, certification of organic food, marketing aspects of organic food, common parameters of organic food, awareness on the value of organic food, and market availability of organic food were the extracted determinants. The results of multiple linear regressions revealed that market availability, common parameters of organic food, and health and environment consciousness are the dominating variables of the purchase intention of organic food consumers. Thus, expanding the market conditions for organic food, establishing a better marketing system, conducting effective food awareness programs, and value addition for organic food are the identified timely essential recommendations.

Keywords: Determinants, organic food, consumers, purchase intention, Urban Sri Lankans

INTRODUCTION

Organic food consumption is currently becoming a popular practice in many countries. Moving from conventional food to organically produced food consumption is one of the major trends in the present society. Throughout the world, and in Sri Lanka, organic food is becoming popular over conventional food. Organic food can be defined as the products that are produced in the process of production without adding any artificial fertilizers, pesticides, and additives (Mohamed et al., 2014).

At present, lifestyle of the consumer has materialized, especially regarding the attitude of consuming organic food, consuming more aware of the benefits of consuming healthy food in their day-to-day lives. Even though a naturally grown clean, and balanced diets are vital for healthy life, many regular meals are mostly made by using unsafe additives, flavors, preservatives, and various coloring in the market (Shaharuddin et al., 2010). The health aspect has become one of the critical matters of consumers at present when purchasing products, especially regarding food items. This factor is the main motivating force for consumers to buy organic food at the market (Yin et al., 2010).

Many countries around the world have recorded a gradual increase in the usage of organic food. Due to less harmfulness of organic food to humans, and also due to its health and environmental benefits, buyers tend to purchase organic food than conventional food items (Hapuarachchi, 2016). Developing countries like India and China have markets on the global level due to a high demand for their organic products (Sujaya et al., 2018) According to Tech Sci Research (2019), Indian organic food market is anticipated growing over 25% during 2016-2021. As per the world organic marketing statistics, the return for organic products in 2016 in US was EUR 38.9 billion sales, while it was EUR 9.7 billion sales in Germany and EUR 6.7 billion sales in France. Although organic farming is being practiced in 178 countries, the largest single market is the US (47%) next being the European Union (EUR 30.7 billion, 37%) followed by China (EUR 5.9 billion, 6%) (Velluvendi et al., 2019). In focusing attention on customers’ purchase intention, it is a complex process based on the perceptions, behavior, and attitudes of consumers. Purchase intention can be defined as an individual’s readiness and like to purchase a particular product or service (Al-Ekam et al., 2012). Purchase intention may be changed under the fluctuations of price or perceived quality and value of the organic food. Also, consumers are influenced by internal or external motivation factors during the purchasing process (Gogoi, 2013).

Badgley et al., (2007) reveal that organic farming has a higher possibility to contribute to global food production. Davis et al., (1995) revealed that purchase intentions are affected by environmental and health consciousness, safety and quality concerns, and important product characteristics such as nutritional value, freshness, taste, and price level. According to Mintel (2000), as the young and old aged groups of people least concern with organic food, they have lower emphasis on their diet and health. Organic consumers think that production of most of the conventional food products is environmentally harmful as it involves high use of chemicals and pesticides, while organic food production is perceived as being environmentally friendly (Wilkins and Hillers 1994). Many studies revealed that concern on environment has a favorable influence on the consumer purchase intention (Zanolli and Naspetti 2002; Magnson et al., 2003).

Study of Rosario (2006) revealed that Sri Lankan consumers do not base on a higher price in S pay a higher cost for the main reason behind these trends are the ever-increasing disease burden and ecological degradation. When considering dietary practices, food habits are responsible for various health problems such as non-communicable diseases, food poisoning, and food allergies. It has been proved that organically manufactured food products do not contain harmful pesticides, additives, and preservatives that can cause health problems (Centre for Organic food and Farming, 2015). Krystallis and Chryssohoi (2005) stated that, factors like food quality and security, reliance in certification and also in some case the brand name, heavily influence in determining a purchase than price and socio-economic variables. As per Chryssohoi et al. (2000) and Padler and Foster (2005), consumer knowledge determines the purchasing intention of organic food. Subbelar et al., (2000) claimed that, if consumers are more knowledgeable about organic food, their purchasing intention is mainly positive. Knowledge of consumers about organic food could be increased from various sources. Gracia and Magristis (2007) proved that, information on organic food displayed at the market could have a high influence on consumers’ knowledge. Pandey et al., (2019) revealed that understanding consumer is crucial for sellers for the gradual growth of the organic food market.

Sri Lanka has full of natural resources than other countries. It has a high potential to fulfill this ever-growing market demand in the society for organic products. Countries across the world, including Sri Lanka, have recorded a comparative increase in use of organic food (FIBL and IFOAM, 2013). Many researchers reported that people who are health conscious and environmental concerned tend to have a positive attitude on organically processed food. This booming industry in food sector has created a necessity to study on the purchase intention towards organic food in Sri Lanka as agricultural producers, where it provides valuable insights to drive the organic food market effectively. Consumers’ purchasing intention towards organic product has an impact on consumer behavior towards organic foods.

Sri Lankans are experiencing health issues and environmental problems when they deviate from traditional food habits and conventional agricultural methods. World Health Organisation (2015) highlighted that non-communicable diseases and unhealthy foods had caused 38 million deaths around the world. Sri Lankan government is turning towards organic farming, and motivating farmers to practice organic farming. However, the value of organic food is perceived differently by consumers, and hence, it is time to find out about the consumer purchasing intention towards organic products. Therefore, this study aimed to reveal the determinants of purchase intention of local organic food among urban Sri Lankans. Thus, the urban consumers of Sri Lanka, the main aim of this study was “what the factors determine the purchase intention of urban Sri Lankan consumers’ towards local organic foods are?”

OBJECTIVES OF THE RESEARCH

The primary aim of the research was to study the determinants of consumer purchasing intention towards local organic food in urban Sri Lanka. Evaluation of the socioeconomic characteristics of the consumers of organic food, the present situation of purchasing organic food and willingness to purchase of organic food in future, identification of the determinants of purchasing intention of organic foods, and analysis of the relationship between extracted determinants and purchase intention of organic food were the specific objectives of the study. Using the conceptual framework (Figure 1), six hypotheses were formed as follows.

Hypothesis used in the study
H1: There is no relationship between Health and environmental consciousness and the purchase intention of organic food.
H2: There is no relationship between Product certification of organic food and the purchase intention of organic food.
H3: There is no relationship between Marketing of organic food and the purchase intention of organic food.
of organic food and the purchase intention of organic food.

H5: There is no relationship between Awareness about the value of organic food and the purchase intention of organic food.

H6: There is no relationship between the Market availability of the product and the purchase intention of organic food.

Socio-economic factors of organic consumers in urban areas.

Socio-economic factors of the sample are important in multiple ways. Therefore, main socio-economic factors such as age, gender, education level, and monthly income of the respondents were reviewed in detail. Results are presented in Table 1.

Table 1. Socio-economic factors of the respondents (n=144)

<table>
<thead>
<tr>
<th>Socio-economic factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>16-30</td>
<td>21.4</td>
</tr>
<tr>
<td>31-45</td>
<td>14.6</td>
</tr>
<tr>
<td>46-60</td>
<td>11.1</td>
</tr>
<tr>
<td>more than 60</td>
<td>10.3</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>37.2</td>
</tr>
<tr>
<td>Female</td>
<td>62.8</td>
</tr>
<tr>
<td>Martial status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>86.5</td>
</tr>
<tr>
<td>Unmarried</td>
<td>13.5</td>
</tr>
<tr>
<td>Family size</td>
<td></td>
</tr>
<tr>
<td>4-5 members</td>
<td>53.6</td>
</tr>
<tr>
<td>&gt;5 members</td>
<td>46.4</td>
</tr>
<tr>
<td>Are there children in the family?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>64.8</td>
</tr>
<tr>
<td>No</td>
<td>35.2</td>
</tr>
<tr>
<td>Educational level</td>
<td></td>
</tr>
<tr>
<td>A/L</td>
<td>47.2</td>
</tr>
<tr>
<td>Graduate</td>
<td>38.6</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>14.6</td>
</tr>
<tr>
<td>Monthly income (LKR)</td>
<td></td>
</tr>
<tr>
<td>40,001-58,000</td>
<td>34.0</td>
</tr>
<tr>
<td>85,001-162,000</td>
<td>44.4</td>
</tr>
<tr>
<td>&gt;162,000</td>
<td>21.5</td>
</tr>
</tbody>
</table>

Source: Consumer survey 2016-2018

As per Table 1, most of the consumers (70.8%) belonged to the age category of 31-45 years. The majority (74.3%) of 144 respondents were females. It seems that, consumers with a good educational background, concern more about organic foods than the others. The highest percentage of urban consumers (44.4%) had received a monthly income between 85,001 – 162,000 LKR, which is a comparatively higher level of income compare with the average monthly income of a normal family in the country.

The present situation of purchasing organic food and willingness to purchase organic food.

The present situation of purchasing organic food and willingness to purchase organic food in the future were studied, and the findings are presented in Table 2.

Table 2: The present situation of purchasing organic food, and the willingness to purchase organic food

<table>
<thead>
<tr>
<th>Present situation of buying (n=600)</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>344</td>
<td>57.3</td>
</tr>
<tr>
<td>No</td>
<td>224</td>
<td>37.3</td>
</tr>
<tr>
<td>No response</td>
<td>62</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Source: Consumer survey 2016-2018

According to Table 2, the KMO value of sampling adequacy is 0.803, which exceeded the suggested cut-off value of 0.60 (Tabachnick and Fidell, 2007). The Bartlett’s test of sphericity was significant (Chi-square value 1886.493, p 0.000), indicating that the inter-item correlations were sufficiently large for principal component analysis (PCA). A PCA followed the KMO and Bartlett’s test, and Table 4 presents the result.

Table 4. Results of the principal component analysis (PCA)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>SD</th>
<th>Factor loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health and environment consciousness</td>
<td>4.23</td>
<td>0.875</td>
<td>0.805</td>
</tr>
<tr>
<td>The idea which is “No Haunting effects” become the reason for purchasing intention</td>
<td>4.58</td>
<td>0.621</td>
<td>0.787</td>
</tr>
<tr>
<td>The idea which is “Good for Health” become the reason for purchasing intention</td>
<td>4.19</td>
<td>0.887</td>
<td>0.701</td>
</tr>
<tr>
<td>2. Product certification of organic food</td>
<td>4.53</td>
<td>0.678</td>
<td>0.636</td>
</tr>
<tr>
<td>Label influences the purchasing intention of organic food</td>
<td>3.44</td>
<td>1.069</td>
<td>0.826</td>
</tr>
<tr>
<td>Brand Name influences the purchasing intention of organic food</td>
<td>3.31</td>
<td>1.119</td>
<td>0.782</td>
</tr>
<tr>
<td>Consumers trust the labels of organic food</td>
<td>3.16</td>
<td>1.075</td>
<td>0.733</td>
</tr>
<tr>
<td>Labels mean high-quality food</td>
<td>3.10</td>
<td>1.047</td>
<td>0.722</td>
</tr>
</tbody>
</table>

Determinants of Consumers’ Purchase Intention for Local Organic Food in Urban Sri Lanka

As per Table 2, only a substantial number of consumers (24%) have bought organic food. Even among them, only a very few number (16%) has bought them frequently, while the rest were occasional buyers. Nevertheless, among the respondents, a higher percentage (52.4%) was willing to pay a premium price for organic products in future, if products are truly organic. According to Coulibaly et al., (2011), consumers in West Africa, Ghana, and Benin have agreed to pay a premium price of organic vegetables. Consumers’ willing to pay for premium price for organic products differ across diverse product categories (Gil et al., 2000; Krystallis and Chrysohooidis, 2005).

Determinants of purchase intention of organic foods by the urban consumers

A study on the significant determinants of the purchase intention of organic foods by urban consumers was carried out in this stage. Firstly, the Kaiser-Mayer-Olkin (KMO) and Bartlett’s Test was carried out to check the suitability of the data for the principal component analysis. Table 3 presents the findings of the KMO and Bartlett’s Test.

Table 3: KMO and Bartlett’s Test

<table>
<thead>
<tr>
<th>Kaiser-Mayer-Olkin Measure of Sampling Adequacy</th>
<th>0.803</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. Chi-Square</td>
<td>1886.493</td>
</tr>
<tr>
<td>Bartlett’s Test of Sphericity</td>
<td>351</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

According to Table 3, the KMO value of sampling adequacy is 0.803, which exceeded the suggested cut-off value of 0.60 (Tabachnick and Fidell, 2007). The Bartlett’s test of sphericity was significant (Chi-square value 1886.493, p 0.000), indicating that the inter-item correlations were sufficiently large for principal component analysis (PCA). A PCA followed the KMO and Bartlett’s test, and Table 4 presents the result.
5. Awareness about the values of organic food

Information on Nutritional value of organic foods affects the purchasing intention.

<table>
<thead>
<tr>
<th>Perception</th>
<th>Correlation Coefficient</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of organic food in the market influences the purchasing intention.</td>
<td>0.939</td>
<td>0.757</td>
</tr>
</tbody>
</table>

The result of PCA in Table 4 evidenced that six (06) factors were extracted as those components are good for the purchase intention of the organic foods, from the consumers’ responses to the 27 statements as variables for principal component analysis, (with Kaiser Normalization and varimax rotation). These factors were extracted with factor loadings value below 0.5, and the corresponding coefficient was achieved by applying the reliability coefficient Cronbach’s alpha for further clarification.

Factor 1 (Health and environment consciousness) was based on the items such as “no harmful effects – absence of any chemical food additives, protect soil microbial population, enhance soil conservation and increase natural soil fertility level”, “good for health,” and “no pesticides” as the reasons for purchasing organic food. The study of Kapuge (2016) and Wijesinghe et al., (2016) explained that the awareness and health consciousness are the key determinants of purchasing organic foods, and they have a positive impact on the purchase intention. However, they reported that environmental consciousness does not have a significant impact on individuals’ purchasing attitude of organic food. But, the findings of this study revealed that, environmental consciousness is also an important determinant of purchase intention. Meanwhile, based on a research, Sivathanu (2015) has reported a similar finding. Both findings indicated that, consumers prefer to purchase organic products due to the involvement of environment-friendly processes.

Factor 2 (Product certifications of organic food) was derived from four measures, including labels influences the purchase intention of organic foods, brand name influences the purchase intention of organic foods, consumers trust the labels of organic food, and labels mean high-quality food. The importance of certification and organic labeling was also considered as a strong determinant in the study of Narmilan and Amuthenie (2015). This study revealed that product certification and organic labeling are better solutions to overcome the problem to recognize the quality of organic foods.

Factor 3 (Marketing of organic food) was derived from the labeling and organic foods, government rules and regulations on the safeness of organic foods related to organic foods, which influence the consumers’ purchase intention. Marketing aspects of organic food was derived from the factors following taste, good smell, and quality of organic food, which influence the consumers’ purchase intention.

Factor 4 (Common parameters of organic food) was derived from the factors including taste, good smell, and quality of organic food, which influence the consumers’ purchase intention.

According to Ozgunen (2012), health, price, quality, and food safety are the four factors that motivate consumers to purchase organic food. Findings of Narmilan and Amuthenie (2015) indicated that the role of price, quality, health, and the safety of foods are more important for the purchasing behavior of organic foods. Among those variables, health and price are the most dominant determinants. However, according to Sivathanu (2015), health, safe, and nutritious factors are the leading determinants of the purchase intention of organic foods.

Factor 5 (Awareness of the value of organic products) comprised of two measures as the information on nutritional value of organic food affecting the purchase intention. The good smell of organic food affects the purchasing intention.

<table>
<thead>
<tr>
<th>Perception</th>
<th>Correlation Coefficient</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness about the value of organic foods</td>
<td>0.013</td>
<td>0.033</td>
</tr>
<tr>
<td>Market availability of the product</td>
<td>2.02</td>
<td>2.594</td>
</tr>
</tbody>
</table>

The relationship between extracted determinants and purchasing intention of organic food was analyzed using multiple linear regression analysis. According to the six hypotheses, the resultant factor scores were then regressed against the dependent variable (mean of purchasing intention). Table 5 presents the relevant results.

Table 5. The results of multiple linear regression analysis

<table>
<thead>
<tr>
<th>Health and environment consciousness</th>
<th>Beta coefficient</th>
<th>T</th>
<th>Sig.</th>
<th>Hypothesis H0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.167</td>
<td>0.069</td>
<td>0.040</td>
<td>Reject *</td>
</tr>
<tr>
<td>Product certification of organic foods</td>
<td>0.035</td>
<td>0.429</td>
<td>0.669</td>
<td>Do Not Reject</td>
</tr>
<tr>
<td>Marketing aspects of organic foods</td>
<td>0.056</td>
<td>0.691</td>
<td>0.491</td>
<td>Do Not Reject</td>
</tr>
<tr>
<td>Common attributes of organic food</td>
<td>0.174</td>
<td>2.157</td>
<td>0.033</td>
<td>Reject *</td>
</tr>
<tr>
<td>Awareness about the value of organic foods</td>
<td>0.003</td>
<td>0.033</td>
<td>0.974</td>
<td>Do Not Reject</td>
</tr>
<tr>
<td>Market availability of the product</td>
<td>0.202</td>
<td>2.594</td>
<td>0.013</td>
<td>Reject *</td>
</tr>
</tbody>
</table>

Table 5 provides the multiple linear regression model summary and over-fit statistics. The results have shown supportive evidence to prove that the determinants of purchasing intention. The multiple linear regression analysis indicates the significance of the correlation between purchase intention and market availability of the products, common parameters of the organic products, health, and environmental consciousness. This finding is in line with Aertsens et al., (2005), who reported that environmental concern has a significant effect on the purchase of organic food. However, Kapuge (2016) reported that environmental concern is not a determining factor affecting the purchase intention of organic food in Sri Lanka.

Thus, the multiple linear regression analysis revealed that the market availability of the product (Beta coefficient 0.202), common parameters of organic food (taste, smell, and quality) (Beta coefficient 0.174), and purchase intention of organic products (Beta coefficient 0.167) due to higher Beta coefficient value rather than the other factors respectively. And also, both the common parameters of organic food and market availability of organic food were indicated significant relationship to the purchase intention of organic foods.

Determinants of purchasing intention of organic foods are imperative for the marketers, companies and farmers, because these findings have implications in future to fulfill the real consumer requirements.

Conclusion and Recommendations

As per the socio-economic factors, more than half of the consumers of the sample were female, and the majority of them were in between 31-45 years of age. Also, most of them had an education up to the GCE Advance Level and received a monthly income of Sri Lankan Rupees 85,001 – 162,000 (Approximately US dollars 473 – 900).

Less number of consumers are purchasing organic food at present, and out of them, only a very few buy organic food often. However, more customers are willing to buy them in the future if the products are genuinely organic.

As per the principal component analysis, mainly six factors influence the purchase intention of consumers towards organic food. They are health and environmental consciousness, product certification of organic food, marketing aspects of organic food, common parameters of organic food, awareness about the value of organic food, and market availability of the products.

Results of the multiple linear regression analysis indicated a positive relationship between purchase intention and the three determinants (the market availability of the product, common parameters of organic food, and health and environmental consciousness). The key determinant of purchasing organic food was the market availability of the product.

Development of the marketing mix (4Ps) can gain a certain level of upliftment in the organic market in Sri Lanka. According to consumer analysis, there is a significant positive implication for the development of the market. Hence, the marketer/seller need to pay more attention on 4Ps (Product, Price, Place, Promotion) related to organic food.

Improving the marketing system is a great strength for organic agriculture. Almost all stakeholders have to participate in the development of an efficient marketing system. Furthermore, expanding the market conditions for easy access for farmers to sell their products, an innovation of more organic products with quality research, and value-adding promotion is also an essential aspect of marketing, because a favorable image is created by promoting in the form of advertisements. Marketing aspects, including branding, labeling, and product certification are significant factors that affect the purchasing behavior of consumers. Even within this rapid dynamic society, consumers have concerned more about the health aspects of organic food. This could be achieved by conducting effective product promotion and awareness programs in road tours, trade shows, exhibitions, campaigns, and advertising regularly to introduce organic food products. Policymakers need to draw special attention to retain the
Determinants of Consumers' Purchase Intention for Local Organic Food in Urban Sri Lanka

S H P Malkanthi

Abstract

The lack of presence of organic products at the market is an issue faced by consumers who are willing to buy organic food. However, if organic products are available in the market with easy access, consumers tend to buy organic food than other foods. A suitable government certification system for organic food products is required to drive the organic food market efficiently. The current trend of consumer purchasing intention is directed towards their concern about the environmental impact of the production process of particular products.

Acknowledgment

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Determinants of Consumers' Purchase Intention for Local Organic Food in Urban Sri Lanka
ANALYZING THE ORGANIZATIONAL QUESTIONS OF THE ELITE YOUTH ACADEMIES BY THE CASE STUDY OF FOOTBALL ACADEMY OF DEBRECEN

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Keywords: non-profit company, sports enterprise, structural scheme, youth development (JEL Classification: Z2)

INTRODUCTION

Thanks to the great potential and fast development of the sport sector, professionally operated clubs started to appear in the last quarter of the XX. century. These clubs worked like an economical company with profit- and benefit-oriented functions in the frame of the national championships. In the evolution of the professional sport three factors were determined (DOWNWARD et al. 2009):

a. Development in the organizational part of the sport sector
b. Presence of paying spectators and the development of the available profit-oriented sport consumption attitude
c. Creation of properly formalized championships

The sport-science and the economy grew separately for a long time, but next to the nature-science side, the social sciences and economics grew separately as well. The exchange transactions between people and organizations. These procedures are the input of the analysis. In economical manner, market is the mechanism, where the concrete and potential participants of the sector find and change their products or services between each other. The central elements of the process are the supply, demand, price, and income (ACS, 2015).

The aim of this research is to analyze the organizational structure of an elite football academy and also to show the similarities and differences between the youth sport enterprises and profit-oriented professional football organisations.

The business aspect of the sport is a largely nation and sport-specific phenomenon. It is in close relation with the internal attributes of the concrete sport (rules, organization, media-capability, etc.) and in other hand there is an impact from the nations economical system, development level and cultural traditions (ANDRÁS, 2003).

A research from Ibrahim (2009) confirmed, that the advancement in the economy and the successfullness in the sport do not come together. We cannot say, that the nation who has a more advanced economical system has better results in the sport events other than undeveloped countries. This research highlighted that we have to separate successes achieved in the financial and in the sport-technical aspects, and in the future, we have to deal with the economic efficiency separated from the results on the pitch.

The presence and amplification of the business in the sport can be realized in the next general steps. The starting point can be found in the popularity of the sport, which is determined by the amount and potential growth of the number of spectators. This basis amplifies the interests of the companies who want to raise their media and marketing activities. These factors are the ones, whose start the changes in the sports traditional organizational structure, which comes with new stakeholders on the markets of the sport sector. These new participants can be leagues, agencies, event-organizing companies, who generate new cash flows. Thanks to the development, tools shown up for the coordination of the market (ANDRÁS, 2003):

a. business coordination, business techniques
b. specialization: agents, mediators
c. new products: royalties, transfers
d. sport organizations transforming into business organizations

Nowadays, the sport sector is one of the biggest form of entertainment. The market had an impact on the mostly media-capable sports. The consumer became determinate with the penetration of the business into the sports. We can talk about business in the sport, when specialized companies satisfy the consumer demands connected to the sport or watching sport events. The base of this is the suitable organizational structure and the change in the management from the sport-oriented leadership to the company-oriented type. The increase of the solvent demand on the market just amplified these effects. The interesting and media-capable sports, followed by lot of people gained the interest of the company sphere, who wanted to raise their marketing activities, with the fact, that they can be a cheap and alternative advertising space. Thanks to these effects, a lot of money flowed in to the sport-market. This trend changed the traditional income-structure of the sport clubs, and also had an impact on their interior values. With the influence of the commercialization, the sport companies had to adapt to the changed environment of the market. In a couple of sports, the formerly elitist, amateur aspect was changed to the business guided aspect. The closed, socially isolated approach became open, and the game changed into business. Even a small, this interwoven advertising, the battle of these new forms of communication in the market. The media also made a new product in the sports. Intangible assets started to appear connected to the sport-events. From this point the assets the most significant is the broadcasting rights.

According to Gülik and Urbán (2009) a new dimension came inside to the traditional classification of sports. We have to differentiate "made for television" sports also, who are only watchable for us through the television.

According to the definition, the company is the frame of the business enterprise. The company appears as a legal personality, like an organization, and we have to decide if it is a business enterprise or not. It can be decided simply, that if it takes a form of any business organization, we can talk about a business enterprise. The business economics made a multiphasic and coherent criteria system, which can be the base of the decision (CHIKAN, 2003):

a. the organization is independently achieving their goals
b. it works profit-oriented
c. it operates risk fully
d. it operates in the actual market

In this aspect, the business organization is a human activity, which has the basic goal to realize profit with the satisfying of the consumer demands (CHIKAN, 2003). If we want to phrase this definition in the case of sport companies, the sport company is an enterprise, who wants to satisfy the consumer demands realized in the limits of sports with the investments and working costs of the companies.

The components of these are the arisen (sportman) salesmen, the growing entertainment supply, and the highly expensive technological and sport-science apparatus. It is more and more in the interest of the sport-companies to "keep" their popular players, as bare resources on the pitch. The business aspect mostly extended out in the "spectacle sports". The leisure sports realized a change like all the other companies in the business world.

Probably the reason for this big difference between leisure and spectacle sports, and also thanks to the media these sports are important parts of the entertainment sector. Inside the leisure and spectacle sports, the development of the television coverage was the technological development, because sudden expansion of the media and the coverage of the sport events were possible to settle thanks to the technological development. The technological development became open, and the game changed into business.

The presence of the television was the key to gain the interest of the consumers. The media is the biggest bearer of the business oriented sport, because the interest towards the sport increased and also thanks to the media these sports gained ground increasingly. The evolution became analyzable with the methods given by the economy, as the discipline handling the conditions, alternatives, possibilities in the sports, so we have to understand it through the interests of it. It is ascertainable, that many people's free time is pledged to the television, and it made, and helped to spread the "passive sport".

Only a few sports became a "spectacle sport" (ACS, 2015). On occasion of the traditional sports, it is an important aspect for us to see, what are the characteristics to call them media capable.

Five attributes were defined (ACS, 2015) to help us decide these sports:

a. appropriate arrangement in space and time
b. understandable and simple rules
c. spectacular
d. high spectator interest
e. it can be broadcasted without special skill and equipment

The media also made a new product in the sports. Intangible assets started to appear connected to the sport-events. From this point the assets the most significant is the broadcasting rights.
To know, if these conditions exist, it is recommended to inspect these factors more closely on the grounds of sports. About the risky operation, according to Bayer (2006), such high risk shows up only in the entertainment industry, because the fluctuant individual performances go what along with insecurity. Towards this, in theory, the high risk comes with high profit, mostly the operators of the championships, tournaments, and the customers are the television companies, who buy these intangible assets in packages from them.

On the sponsors market firstly sport equipment companies started to appear, but in the 1970's this progress started to become more significant. According to Kassay (2010), the sponsoring is a two-sided business connection with rights and responsibilities bounded for economic successes. This sponsorship can be divided into two main territories of the company, and also the selling of the sport goods. Nowadays this relationship became one of the most important income resource for a company on the sports market.

The merchandising appeared on the grounds of the sport in the 1980's, with the point to increase the income of the sport companies with the selling of products decorated with the colors or logos of the clubs. The merchandising has a great effect on the selling of the club's products with the influence on the consumer decisions. It can affect these decisions with local marketing tools, guarantees, and others mediums. In our days we can enlist the merchandising as a tool for promotion and motivation (DÉNES, 1998).

The players market is a special labor market with a specific characteristic, which is the value of the player is defined, and it can be granted for a limited time between organizations. It is an intangible asset bonded to a person (sportman), and it is overly including his capabilities allied with the sport (ANDRÁS, 2003).

The fast adaptation to the changes is an organic part of a company’s strategy in the competitive industry. This is a typical tendency also in the professional sports as part of the organization of globalization in the business is proceeding. If we use the STEEP (Social, Technology, Economic, Political) analysis to predict it, it can be seen, in the economic aspect, the global economy, like the frame of the sport business and sport business operations (CHIKÁN, 2003), the economic globalization is an important part of globalization. The changing systems are the main challenges for a company (ANDRÁS, 2011). The professional sport and the correlation of the business globalization is not a new concept. According to the interpretation of globalization in the business, in the professional sports, the decisions of the managers weigh the possibilities occurring worldwide. These decisions stay between the borders of Europe, but the expenditure of this frontier can be seen in a short time (CHIKÁN, 2003). It can be seen from these approaches that the merger among the center of the globalization processes are making decisions according to the local, but also for the global trends like input or output processes. The markets of the professional sports (ANDRÁS, 2004) are also global, but only in different amount. The professional sport and their media-capable versions, the so-called spectator sports became the part of the entertainment sector, so they were also affected in 2008 by the economic recession (ANDRÁS, 2011). According to the IEG Sponsorship Report, the classical marketing activities like advertisement and public relations had a downfall, but the sport sponsoring is growing after a small recession (ACS, 2015).

In the last period of the role of the human resource has not been only a labor resource for the economy, and also in the social processes. Nowadays the people became the most significant resource in the aspect of successfulness and economic efficiency in a company. The fast-changing environment in the competitive industry forces the company to react in and in the factors related to the increase in the role of the human resources against other natural and economic resources (SZÁBO and BERDE 2007).

The modern managers see their employees as the most valuable asset in the organization. It has a key role in the success of a company to effectively invest and develop their intellectual capital. According to national and international researches, it can be seen, that the human resources and their management are crucial part of raising a company’s competitiveness and performance in the business sector. The human capital has a significantly bigger value, then a group of people working for the organization. It has his own added value, what the employees bring for the organizational success of a company (DAJNOKI, 2015).

The human capital is a value based on the skills, knowledge and working-, and life experiences of the organizational members. It is also the collective value of motivation. Sometimes it is called as intellectual- and knowledge capital, emphasizing the importance of the human thinking, knowledge and creativity, decision-making, in the operation of the companies (KAROLINY and POÓR 2010).

If we would like to understand the role what the selection of the group of professional sport talents in the sport market brings, we can say that it would be really important, if we would like to bring up this quote: “The human resources have more to do with the sports than we think. The scientific recruitment process finding the talents and reinforcements in the sport sector can be equally valuable to the business sector, just as much as its counterpart” in the Present and future of HR in the sports conference Antal Gubicza, who had successes as head of organizations in the 1980’s, with the point to increase the income of the sport companies, and also the selling of the sport goods. Nowadays this relationship became one of the most important income resource for a company on the sports market.

The nonprofit character has not only had an effect for the financing of the sports, but it is also the main aspect. It is the objective of the management to find the nonprofit organizational background formed in the 19-20. decade in the sports. Usually they were social organizations, and this was the first step in the forming of the national sport associations. These associations worked like a labor organization for the sport clubs, and later on, their cooperation was the base in the forming of the international associations (ÁCS, 2015). According to Andrá斯 (2002), the sport companies are enterprises, what give the frame for the modern sport. They can be formed as a business company. We can analyze these companies in narrow or in wide range. If we choose the narrow range, those companies belong here, who only have contact with the consumer, because they serve a specialist market in a wider range, those companies belong to the group, who are much farther in the supply chain. Thanks to these specialties, they can realize profit form five separate, but closely related markets.

If we would like to understand the role what the selection of the group of professional sport talents in the sport market brings, we can say that it would be really important, if we would like to bring up this quote: “The human resources have more to do with the sports than we think. The scientific recruitment process finding the talents and reinforcements in the sport sector can be equally valuable to the business sector, just as much as its counterpart” in the Present and future of HR in the sports conference Antal Gubicza, who had successes as head of organizations in the 1980’s, with the point to increase the income of the sport companies, and also the selling of the sport goods. Nowadays this relationship became one of the most important income resource for a company on the sports market.

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is the flow of home grown players in to the first team, and to build a base for the youth players. The influence of DVSC on the flow of home grown players integrated to the professional level. This can be a good example for other clubs and not only on the development strategy level, but also on the aspect of the structure of these organizations.

CONCLUSION

It is clear from my research, that the development of the sport sector didn’t only had an effect on the value of the players and clubs, but with this in the amount of the resources, the need for development in the organizational background emerged. The Football Academy of Debrecen is a good example for this process. It had to expend the size and number of the coaches and directors to keep the competition realized on the market of the youth development. In addition to the organizational changes, it had to rationalize the processes also. It was crucial to appoint an operational director, and to separate the managing director role from the technical director. The disbandment of the daily work into departments created a transparent organizational structure what is the base of the proper organization. Besides the development of the company, there are significant differences compared to a profit-oriented enterprise. The base of this is the differences noticeable in the income structure. While the professional clubs need departments handling the marketing and financial planning, the academy has almost all of his income only from the owners and the federation. These departments have less work in the structure of the academy, because the focus is on the development goals, so the importance of social, educational, and sport-science section grows. In summary I can say, that we can realize a constant development in the sport sector, and in accordance with this, we can also see an advance in the organizational questions of sport companies. The publication is supported by the EFOP-3.6.2-16-2017-00003 project. The project is co-financed by the European Union under the European Social Fund.

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ANALYSIS OF VISION AND MISSION STATEMENTS
CHARACTERISTICS AND THEIR ASSOCIATION
WITH ORGANIZATIONAL PERFORMANCE: A GUIDE
TO WRITING EFFECTIVE VISION AND MISSION
STATEMENTS

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Abstract: This paper empirically examines vision and mission statements of Fortune 500 firms for the purpose of identifying and examining specific characteristics and associating these attributes with organizational performance. Additionally, this paper provides a theoretical foundation for the inclusion of various characteristics of vision and mission documents, and thus provides guidance for organizations to develop and revise these important strategic planning documents.

INTRODUCTION

Peter Drucker, known to many around the world as the father of modern management, was a proponent of organizations having formally written vision and mission statements. Drucker (1974) proposed early in his career that firms should ask three questions before engaging in strategy or any other formal aspects of planning: 1) Where are we going? 2) What business are we in? 3) How are we going to get there? Question 1 above is similar to the commonly used definition of a vision statement often stated as “what do we wish to become” and Question 2 is the currently universally accepted definition of mission. Question 3 by Drucker addresses the strategy and tactics used to execute both the vision and mission statements. Drucker’s thoughts on firms having formal vision and mission statements, much like other aspects of his work, are articulated beautifully simple yet vitally important for success and survival in business today just as they were two generations ago during Drucker’s time.

Increasingly today there is a growing need for organizations whether a Fortune 500 firm, a mom and pop business, a university, or a not-for-profit firm to have a clear vision and mission statement as the precursor to a detailed strategic plan. With the current climate of globalization, rapid transfer of information, and technological advancements, many mistakenly believe there is less need for a clear vision and mission as firms strive to adapt to survive. As firms are required to adapt more quickly now than ever before since customers are increasingly more demanding and discriminating in their purchasing habits. The latter forces firms to have a clear vision, mission and strategy.

This paper further develops the vision and mission statement literature and set up a series of hypotheses for empirically testing the characteristics of vision statements and mission statements. Additionally this paper will attempt to relate vision and mission statement attributes to firm performance; the main objective is to determine a set of vision and mission characteristics common among firms. Specifically in this paper, 74 vision and 74 mission statements included in the most recent Fortune 500 list are critiqued in accordance with methodology set forth and statistical results will be tabulated.

Although there have been multiple papers studying mission statements components or their association to organizational performance whether it be direct financial measures or indirect customer satisfaction measures or employee responses...
on a survey, there has been little research on vision statements. Also, to our knowledge, there has been little to no prior research on mission and vision characteristics. We define characteristics more broadly than components. This paper attempts to address this shortcoming in the literature and provide a foundation for future vision statement research, provide a framework for writing mission and vision statements. Characteristics commonly found in Fortune 500 firms’ statements, and to examine the link on organizational performance and mission / vision quality from a characteristic perspective, which has not been previously addressed in the literature to our knowledge.

Literature Review

Today there are virtually limitless choices no matter the industry. For example, customers can purchase cars with almost unlimited features tailored to specific customer needs. Similarly in the cosmetic industry there are virtually limitless choices, as is also true in the restaurant industry and countless other areas of business. The days of producing a product that will satisfy the needs of a large percentage of the population are vanishing. These new trends in customer preferences and demands is increasingly forcing organizations to have a clear, detailed, well conceived vision, mission and strategy.

Vision and mission development continues to be considered an important first step in strategic planning and several textbooks even devote a full chapter just to vision and mission statements.

A study by Alegre, et. al., (2018) revealed mission statement articles in 20 different academic journals totaled to 53 from 1980 to 2014 with the largest number the five year period from 1995 to 1999 with 14 articles. The most recent five year period 2010 to 2014 had 8 articles and the first period of 1980 to 1984 only had 2 papers written within the 20 journals studied revealing a steady trend of around 2 papers in the 20 academic journals studied related to mission per year since 1990. Of the publications studied, over 50 percent studied within academic journals studied related to mission per year since 1990. Of the publications studied, over 50 percent studied on vision statement construction and its association with employee motivation. Research suggests that vision statements should be short, approximately one sentence in length and include as many managers as possible in developing the statement. Jeff Weiner, CEO of LinkedIn, was recently voted the best CEO in the United States and recently stated at a conference in San Francisco the single most important word of 2013 was "imagination." A good vision is as malleable and clearly as possible to everyone at the organization. Former CEO of Colgate, Reuben Mark is another large believer in vision statements, indicating, with respect to vision, it is best to push one vision globally to its stakeholders. If they are still applicable to mission statement construction if they were still applicable to mission statement construction.

Benefits of Quality Vision and Mission Statements

Although debate continues regarding whether effectively written vision and mission statements will lead to improved organizational performance, a meta-analysis by Desmidt et al., (2011) indicated mixed results on firm performance. Another key advantage of well written mission or vision statements is they provide a means to resolve divergent views among managers in a tactful manner. For example, in a univeristy setting faculty may have honest disagreements on the relative importance of research, teaching and service in assessing individual performance. Revisiting the firm’s vision and mission statement is an effective way to diffuse such disagreements in a tactful manner.

Developing Effective Vision and Mission Statements

Discussed in detail under the respective vision and mission statement sections, there are characteristics, components, and attributes that are common in high performing vision and mission statements. Firms should include as many managers as possible when writing vision and mission statements. Generally, firms should educate managers on what constitutes a quality vision and mission statement. Managers should be reminded of the strategy and goals of the corporation, and then ask them to develop their on respective mission and vision statements (David & David, 2017). Upon completion, top management should collect and merge statements into a single document and continue the process until an agreed upon vision and mission are developed. If properly developed, the final product will contain statements unique to the firm (David et al., 2014), be written in a quality manner consistent with vision and mission, and provide a robust level of commitment to the organization as many managers participated in the process.

Vision Statements

In business, having a clear vision provides the foundation for a strategic plan and a mission statement. A firm must first know where it wants to go before it can determine its strategy of how it wants to get there. Research suggests that vision statements should be short, approximately one sentence in length and include as many managers as possible in developing the statement. Jeff Weiner, CEO of LinkedIn, was recently voted the best CEO in the United States and recently stated at a conference in San Francisco the single most important word of 2013 was "imagination." A good vision is as malleable and clearly as possible to everyone at the organization. Former CEO of Colgate, Reuben Mark is another large believer in vision statements, indicating, with respect to vision, it is best to push one vision globally to its stakeholders. If they are still applicable to mission statement construction if they were still applicable to mission statement construction. Another key advantage of well written mission or vision statements is they provide a means to resolve divergent views among managers in a tactful manner. For example, in a univeristy setting faculty may have honest disagreements on the relative importance of research, teaching and service in assessing individual performance. Revisiting the firm’s vision and mission statement is an effective way to diffuse such disagreements in a tactful manner.

Mission Statements

Unlike the vision statement literature, the mission statement literature is more robust and well contrived in the literature itself for a detailed literature review and thereby supporting the foundations for new studies and insights that are rooted in previously accepted theory. Mission statements are often called by other names that include: creed statement, statement of purpose, statement of philosophy, and statement of guiding principles. Sometimes mistakenly, firms will call a mission statement by the name vision and a vision statement by the name mission. For purposes of this paper, mission statements answers questions that are common in the text of vision and mission statements are we in” and vision statements answer the question “where do we wish to go.” Drucker (1974) states the first step in a strategic plan is to answer the question “what is our business;” the mission and vision statements answer the question the firm is not as developed or robust as the prior literature on mission and vision characteristics. One of the goals of this paper is to improve the theoretical contribution by developing improved insight on vision statement construction and its association with organizational performance.

Characteristics of a Mission Statement

1. Broad in scope; does not include monetary amounts, numbers, percentages, ratios, or objectives
2. Concisely fewer than 100 words in length
3. Inspiring
4. Identifies the utility of a firm’s products
5. Reveals that the firm is socially responsible
6. Reveals that the firm is environmentally responsible
7. Includes nine components: customers, products or services, markets, technologies, concern for public growth, profits, philosophy, distinctive competence, concern for public image, concern for employees
8. Reconcilatory; resolves divergent views among stakeholders
9. Enduring but never cast in stone
10. Attracts customers; is written from a customer perspective

Source: David 17th ed., textbook, p. 89

Prior research studied the nine components to determine if they were still applicable to mission statement construction assuming possibly the institutional forces of coercive, normative and mimetic pressures (DiMaggio & Powell, 1983) would drive mission statements of firms in similar industries to be more similar than a basket of firms in different industries (Peyrefitte & David, 2006). This was indeed the case as a sample of firms from 3 distinct industries indicated industry membership did play a significant role in components used. The study found the components of core competencies, philosophy, and concern for public image were all included in mission statements across all industries; along with customers, products and services, and technology that were also statistically significant on being included in mission statements.

Link to Performance

The seminal article published in 1987 in the Academy of Management Executive by Pearce and David (1987) revealed 8 components commonly associated with mission statements. 1) Customers, products & services, geographic region served, technology, concern for survival, growth and financial profitability, philosophy, core competencies, concern for public image. Later work by David et al., (1991) revealed 7 components: customers, products & services, geographic region served, technology, concern for survival, growth and financial profitability, philosophy, core competencies, concern for public image. In their article, Pearce and David concluded the three of the eight components were statistically significant with higher performing firms. Higher performing firms were firms with a profit margin in the top quartile of all responding Fortune 500 firms. These three components were: Philosophy, Self-concept, and Public Image.

There has been substantial research since attempting to link the quality of mission statements to firm organizational performance. A meta-analysis in 2011 that focused on twenty years of research on mission statements indicated mixed evidence of mission statements boosting performance Desmidt et al., (2011). There is a growing thought in business that with a rapidly changing world, strategy and vision and mission are not as important as they once were. As managers...
focus increasingly on means that lead directly to performance, mission statement construction oftentimes takes a back seat and is met with less enthusiasm with managers (Baert & Bart, 1996). Despite research suggesting managers possibly exhibit less enthusiasm developing a mission and vision, there is evidence in many journals that show a positive correlation between well written mission statements and firm performance indicating the importance of having a functional business mission.

Researchers studying American firms, Dutch firms (Siddhu, 2003), and Japanese firms (Hirata, et al., 2010) all suggest a positive correlation between firm performance and mission statements. While other research has revealed a positive relationship between desired organizational behaviors and well constructed mission statements (Bart & Baetz, 1998; Bart, 1996). Bart and Baetz (1998) in fact found the most successful statements exhibited return on sales significantly higher than firms with poorly written mission statements. A recent article showed a positive relationship with American Consumer Satisfaction Scores (ACSI) Scores and well written mission statements David et al., (2016) . Gernand and Cooper (1990) revealed mission statements written from a customer perspective had a positive impact on firm performance.

Despite some prior research showing a positive correlation between well crafted mission statements and organizational performance, many other papers showed no such relationship. Research on the topic has ranged from studying the relationships between profits and employee turnover Klemm et al., (1991), manager satisfaction on mission statements containing the outlined characteristics and organizational performance. Other studies such as Vandjick et al., (2007) studied the relationship between quality written mission statements and employee behavior without significant findings. Further negative evidence on the importance of mission statements was reported where firms with and without a mission statement were compared on firm performance with no differences reported (Dharmadasa et al., 2012). One possible explanation on the inconclusive findings regarding mission statements’ link to organizational performance is the lack of research using a accepted definition of mission.

Another possible reason explaining the lack of significance in having a quality mission statement and firm performance is most articles to date have not examined moderating variables’ association with mission and firm performance. A paper recently published provided a series of propositions laying the groundwork for assessing management’s cognition regarding the business mission Williams, et al., (2015). Williams provides four criteria to determine management commitment, including 1) communicating and identifying the core concepts that should be included in a mission, 2) involve as many managers as reasonably possible and from various functional areas, 3) set targets with respect to the mission, and finally to 4) review and revise the mission as necessary. However, despite these possible improvements and suggestions, little is provided here on implementing mission statements.

This important concept reveals the fact that despite the quality of the mission statement, if management is unwilling to adhere to the statement or struggles with implementing the statement, then simply analyzing the components or other attributes of a mission for its association with firm performance will restrict the chances of finding a positive statistical relationships.

A story told in some management circles describes an executive who was a manager and the CEO of the firm, as the manager was debating with the CEO that his new ideas could be formulated or implemented because of the firm’s stated strategy. In the story the CEO asked to see the formal strategy document, crosses out the affording passage and quipped, now we can proceed with my plans. The story, true or not, serves as an example of the supposed relationship between the mission statement and organizational performance. Another story illustrated in the above book, was when an employee came to his manager indicating he knows the mission of the company, he believes in the mission and he is currently with the customer but he is just not sure how to implement the mission.

Hypotheses
Hypothesis 1: Mission statements and vision statements will contain the same number of words.
Hypothesis 2: Mission statements will not average around 100 words in length.
Hypothesis 3: The 4 characteristics will not be found in vision statements.
Hypothesis 4: The 4 characteristics will be found in mission statements.
Hypothesis 5: There will be a relationship between vision statements containing the outlined characteristics and organizational performance.
Hypothesis 6: There will be a relationship between mission statements containing the outlined characteristics and organizational performance.

In selecting mission and vision statements to analyze, a sample of 74 was drawn from the 2019 Fortune 500 list. This sample was deemed large enough to produce a sample statistical power having only a significant statistical significance if present. In addition, using the Fortune 500 has several key benefits. Most importantly, the sample “self-controls” for many outside factors as all firms included in the Fortune 500 met the publication’s criteria for inclusion. Using the Fortune 500 sample ensures firms are similar in nature. Secondly, using the Fortune 500 introduces less bias than if the researchers simply choose mission and vision statements in a nonrandom manner. Finally, the use of the Fortune 500 is common among many mission statement studies including Pearce & David (1987) and Peryefitte (2012). Once the firms were determined through a random number generator, the researchers entered the respective websites and tabulated firms who contained a mission, vision, or both. Only firms who had both a published mission and vision were rated for this study. Network Peryefitte (2012) sent formal letters to Fortune 500 firms asking for copies of their mission statements receiving 353 replies. Pearce & David (1987) received 218 replies to a similar request. We used both sets in our research and both usable mission statement for analysis. With improved transparency and ready access to the Internet, we feel our approach outlined above is appropriate for sample collection. In addition, we believe our sample size of 74 is sufficient to produce a generalizable sample adapted to our research. A 1 to 3 rating system was used for all factors other than word count, where a raw number was utilized. The 1 to 3 coding system is common in other articles on mission statements within the literature. Note Inspiring was selected as a characteristic of both vision and mission statements for research.

Characteristics and Coding Scheme
The coding scheme was selected after 1) careful study of vision and mission statements and 2) adapted from prior suggestions in the David, et al., (2020) Strategic Management textbook by Pearson. Coders discussed the coding system on a sample of mission and vision statements not used in the analysis to ensure clarity was present before proceeding with the actual coding of the sample. A 1 to 3 rating system was used for all factors other than word count, where a raw number was utilized. The 1 to 3 coding system is common in other articles on mission statements within the literature. Note Inspiring was selected as a characteristic of both vision and mission statements for research.

Vision Statement Coding Scheme
1. Clear  Identifies the traditional definition of a vision statement answering the question “what do we wish to become” In addition, the Clear characteristic should identify the firm’s industry to receive a higher rating. 1) Does not address the question “what we wish to become” in any regard, the statement is simply a slogan. For example, good ethics is good business or the customer is king. 2) Makes a minimal attempt to answer the question what we wish to become but is extremely vague and could be used for many industries; for example, we wish to become the top customer service firm in the world. This statement could be used equally for McDonald’s or
Airbus. 3) Addresses what the firm wishes to become and mentions the industry at least indirectly but is vague. For example, we wish to be the best restaurant or we wish to be the top selling restaurant in the world or more specifically such as to becoming renown throughout the United States as providing the most nutritious and healthy Mexican food options.

2. Futuristic – For example, looking, indicates the firm’s aspirations over the next several years. 1) Statement provides little to no wording that could be judged futuristic in nature. For example, We conserve resources and make people happy. 2) Provides at least some inclination of the future concern our outlook. For example, At ACM company we will continue to provide our customers automotive and home insurance needs and adapt as needed. 3) Provides a more detailed inclination of the future concern for the firm.

3. Concise – Vision statements should only be a few words in length, shorter is better, and around one sentence in length. A total word count was utilized here.

4. Unique – What does the firm specialize in, what is the firm’s competitive advantage, what makes the firm different from rivals. 1) The firm’s vision statement includes no mention of its uniqueness or competitive advantage, for example, our vision is bringing smiles around the world 2) The firm’s vision statement has words that may discuss uniqueness, competitive advantage however they are vague and at best only limit some possible industries from likely using the exact same vision statement even though that you could use the same business in differing industries could use the same statement. For example, quality is what drives our success and remains our vision. 3) The firm’s vision statement is specific enough that only one firm or sector could reasonably use the exact same statement. For example, We strive to become the premier compounding drug firm in the world, matching drugs to specific patients by placing the correct dosage and drug fit for purpose. 4) Mission Inspiring – deriving from CEO Mack and others, motivates employees and customers to support the organization. 1) Only mentions being the best or profits, no mention of words that will inspire employees or customers. 2) Mission does not include objectives or numbers. For example, we are in the fast food business and we are in it for the long run. 3) Provides a more specific wording that clearly inspire stakeholders to support the company for reasons other than mere utilitarian reasons. For example, We strive to produce the most efficient wind turbines in the world, leading to a cleaner earth and more efficient energy for generations to come.

Written by describing products in a utilitarian nature. 1) No products or services are described 2) products or services are described but referred to in a utilitarian nature for example, we strive to produce the best wind turbines all around. 2) Mentions words that can be viewed as inspiring but the overall statement is not specific and could be used for any firm in any industry. For example, our vision is to be the best in the world, and distinguishes the business from others. 1) Provides a concise concise nature. At total word count was used here. Generally around 100 words. 4) Inspiring – 1) Only mentions being the best or profits, no mention of words that will inspire employees or customers to be great or support the firm for reasons other than growth or profit. For example, We want to be the top airline company in Europe. Or we care about customer and employee satisfaction in the firm so that we strive to produce the best wind turbines in the world. 2) Mentions words that can be viewed as inspiring but the overall statement is not specific and could be used for any firm in any industry. For example, our vision is to be the world’s best in every fashion in everything we do. 3) Mentions words that clearly inspire stakeholders to support the company for reasons other than mere utilitarian reasons. For example, We strive to produce the most efficient wind turbines in the world, leading to a cleaner earth and more efficient energy for generations to come. 5) Written by describing products in a utilitarian nature. 1) No products or services are described 2) products or services are described but referred to in a utilitarian nature for example, we strive to produce the best wind turbines all around. 2) Mentions words that can be viewed as inspiring but the overall statement is not specific and could be used for any firm in any industry. For example, we are in the fast food business and we are in it for the long run. 3) Provides a more specific wording that clearly inspire stakeholders to support the company for reasons other than mere utilitarian reasons. For example, We strive to produce the most efficient wind turbines in the world, leading to a cleaner earth and more efficient energy for generations to come.

Mission Statement Coding Scheme

Factors selected for analysis of the characteristics of mission statements include the following:

1. Clear. Answers the question what business are we in and distinguishes the business from others. 1) Provides a mission but does not answer the question what business are we in or addresses such that could be used for multiple firms in differing industries. For example, we help people from all around the world. 2) Answers the question what business we are in, but is not expanded upon and could be multiple businesses. For example, We are committed to serving food. Here this could be any type of restaurant. 3) Clearly answers the questions what business we are in. For example, we are in the fast food business specializing in burgers and fries.

2. Broad in scope, does not include monetary amounts, numbers, percentages, ratios, or objectives. 1) Mission includes reference to both objectives and includes numbers, percentages, or ratios. 2) Mission makes reference to only objectives or includes numbers, percentages or ratios, but not both. 3) Mission does not include objectives or numbers, percentages or ratios.

3. Concise in nature. At total word count was used here. Generally around 100 words.

4. Inspiring – 1) Only mentions being the best or profits, no mention of words that will inspire employees or customers to be great or support the firm for reasons other than growth or profit. For example, We want to be the top airline company in Europe. Or we care about customer and employee satisfaction in the firm so that we strive to produce the best wind turbines in the world. 2) Mentions words that can be viewed as inspiring but the overall statement is not specific and could be used for any firm in any industry. For example, our vision is to be the world’s best in every fashion in everything we do. 3) Mentions words that clearly inspire stakeholders to support the company for reasons other than mere utilitarian reasons. For example, We strive to produce the most efficient wind turbines in the world, leading to a cleaner earth and more efficient energy for generations to come. 5) Written by describing products in a utilitarian nature. 1) No products or services are described 2) products or services are described but referred to in a utilitarian nature for example, we strive to produce the best wind turbines all around. 2) Mentions words that can be viewed as inspiring but the overall statement is not specific and could be used for any firm in any industry. For example, we are in the fast food business and we are in it for the long run. 3) Provides a more specific wording that clearly inspire stakeholders to support the company for reasons other than mere utilitarian reasons. For example, We strive to produce the most efficient wind turbines in the world, leading to a cleaner earth and more efficient energy for generations to come.

Cronbach Alpha Results

A session Alpha resulted in the results, which is a measure to test inter-rater reliability results, were positive. Only one variable of the 8, “Vision Future” produced a questionable result below 0.70 in Figure 2 below. However, only one variable “Mission Clear” produced a good result over 0.80. All variables but “Vision Future” were over 0.70 so reliability is acceptable standards. Based on the reliability results, 8 new variables were created in SPSS averaging the ratings of the two raters to create a composite score. This composite score was used in all subsequent analyses.

RESULTS

Hypothesis 1 was tested using a paired samples t-test in SPSS. The null was rejected in favor of the alternative with the average mission statement including approximately 33 words compared to the average vision statement containing 19 words. Significance level was at the 0.000 level and a t-calculated value of 3.84. While there is no research to our knowledge that has tested vision and mission length, mission statements are generally thought of to be longer in length. Using the two-tailed test outlined above over a directional test, it is strongly supported statistically and practically that indeed mission statements are longer in length than vision statements.

Research by David et al., (2020) suggests that mission statements should be no longer than 100 words in length. For Hypothesis 2, testing the average word count for mission statements using 100 words the t-test value was significant at the .000 level with average words of 33 are corresponding t-calculated value of -19 These results suggest, in practice mission statements are generally statistically much shorter than strategy statements can comfortably argue practically shorter as well. The null hypothesis was not rejected in this case. New direction for writing mission statements can be updated to be shorter in length than previously thought.

Hypothesis 3 and Hypothesis 4 were examined to determine if four new characteristics associated with vision and mission statements were actually present. This research has never been empirically conducted before to our knowledge. A one sample t-test was performed with 1.0 used as the test statistic. Based on the coding scheme outlined earlier in the paper, a rating of 1 indicates the firm had a respective vision or mission characteristic was present but in addition was expanded upon. All 8 characteristics had scores ranging from 1.86 for average score (average rating of both raters) Mission Clear to 2.78 for average score Broad with their respective t calculated scores of 9.38 to 36.94 respectively. All calculated scores were significant at .000. These results are compelling that Fortune 500 firms are including all four characteristics routinely in their vision statements and all four in their mission statements.

Figure 3 below reveals all characteristics for both mission and vision were statistically significant. Coupled with the high interrater reliability these findings are compelling for the first time providing an empirically tested framework for vision and mission statement characteristics in support of the alternative hypothesis for both Hypothesis 2 and Hypothesis 4.

Running regression analysis using the enter method in SPSS on the four mission characteristics no significant results were found using ROE, ROA, Revenue, Profits, EPS, 10 year average EPS and 10 year total return average to shareholders as dependent variables. Likewise running the same analysis on the four vision characteristics no significant results to financial performance was found. Results here were conclusive that well written vision and mission statements had little effect on firm performance. These findings are in agreement with much of the previous literature but also in disagreement with some literature. There continues to be a debate on the correlation between vision and mission statements and firm performance. Our findings of no statistical correlation between financial measures and vision and mission characteristics is not to say vision and mission statements are not important or firms should not attempt to include components and characteristics in mission statements. Simply many other factors play into performance.

New Contributions

1. Determined needed characteristics of a vision and mission statement through examination of their association with organizational performance.

2. Determined characteristics which are commonly used in vision and mission statements.

3. Determined word count used in vision and mission statements.

4. Provided a framework for writing effective vision and mission statements based on characteristics commonly used by Fortune 500 firms.
CONCLUSIONS

This article's purpose serves several areas to provide a comprehensive literature review on mission statement importance evolution in the literature which includes 1) provide a discussion on mission statement components and 2) provide a discussion on the link between mission statements and organizational performance whether performance be a traditional financial number or a more abstract factor such as customer satisfaction scores or employee commitment and 3) this paper's main contribution was to provide a set of characteristics commonly used in vision and mission statement construction. Despite the research on mission statements, very little research has been performed on vision statements, and no research has been performed to my knowledge examining clearly characteristics associated with both vision and mission statements.

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2019 Fortune 500 June 2019, Fortune 500
EXAMINATION OF THE HUNGARIAN ESPORT ECOSYSTEM THROUGH INTERNATIONAL EXAMPLES

Abstract: Esport was very close to be medal awarded competition at the 2022 Asian Games, finally esport excluded from the Asian Games but all is not lost that is delayed. We have come a long way since the first real esport tournament, for which the first-place prize was a year-long Rolling stone magazine subscription. Nowadays in the digitalized worldwide sport evolves faster than any other sport, and plays a prominent role in the entertainment industry as well. Stadiums are crowded, streams are watched by millions worldwide, and the pace doesn’t seem to ease up in the future either. As Hungary is trying to step into international waters, it became clear that there is a willingness to cooperate at regional and even European level, for example by bringing together different associations (FLANCHER, 2019). The main goal was to bring in stability.},

INTRODUCTION

ESPORT is a fairly “new” worldwide phenomenon with its first ever documented tournament dating back to the early seventies. Esport cultivated its first generation of esport players from the Computer Science majors of the University of Stanford and there was no turning back since then. Although the fast development of esport was advanced with such milestones as the Internet and Worldwide Web uptake and train physical and/or mental abilities. From these key points the eco-system can be characterized by. From these key points esport can be considered by. From these key points esport can be described by the following: an activity performed in virtual environment in competitive settings in which people develop and train physical and/or mental abilities.

The analysis of the definitions outlined a possible answer to a widely debated problem in literatures and esport subcultures as well: Does esport considered as sport?

Looking at the definition of sport in Article 2 of the European Sport Charter: “Sport” means all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels. (EUROPEAN SPORT CHARTER, 1997).

The viewpoint of those favorizing the game suggests that esport reflects the main aspects of sports such as inter-personal competition, development of skills and abilities, the enforcement of rules, attainment of goals, and even levels of coordination and agility (CRAWFORD and GOSLING, 2009).

The criteria taken from the definitions discussed above, compared to the definition of the Sport Charter, suggests that the main essence of sport such as competitive activity, improving physical and mental fitness and achieving results at different levels of competition are all in line with the definition of the Charter. On this basis, in the next stages of our research, we consider electronic sport as a sport and examine it accordingly.

BRIEF HISTORY OF ESPORTS IN HUNGARY

The first signs of the today’s known esport in Hungary appeared in 1990-93, when a television show called “Elektor Kalandor” in which Super Mario could be played on NES (Nintendo Entertainment System) consoles started to captivate the home screens (PWC, 2018).

The first bigger esport series started in 2000 named as EarthQuake with sponsors like Samsung and the World Cyber Games, later on even renamed after it as World Cyber Games Hungary. The tournament started to lose its popularity. It didn’t disappear completely how-ever, and went on as the Budapest Game Show, after another name change, it took its present form in the form of PlayT, held every year (FLANCHER, 2019).

Other esport events started to emerge such as qualifier of the Electronic Sports World Cup, the Gody LAN in 2005, the Becup in 2007, and ICL in 2009 (FLANCHER, 2019).

The breakthrough came with the cooperation of PlayT and the Esportmilla (One million people for the Hungarian Esport movement). Because of this agreement PlayT started to incorporate esport competitions to its program. Due to the rising popularity of these competitions they organized the first esport focused event the Esport Fest. In 2017 the Hungarian Government decided to give 2 billion Huf to the Esportmilla for an esport championship and conference to be organized (FLANCHER, 2019). The main goal was to bring the international esport closer to the countries of the Visegrad Four (Czech Republic, Hungary, Poland and Slovakia).

The V4 Future Sports Festival was very useful in that it drew attention to esports in the region and showed that this can be done in Hungary as well, because of the willingness to cooperate at regional and even European level, for example by bringing together different associations (FLANCHER, 2019).

The event also became evident, that in order for Hungarian teams to catch up to the international level a structural basis is necessary.

To support this idea traditional sport clubs started to integrate

Results

In order for us to analyze the key components of the Hungarian esport ecosystem we need to take a look at the overall picture and understand its networks and processes. Figure 1. shows the main model of the ecosystem.

Figure 1. The model of the Hungarian Esport Ecosystem

Source: Own editing based on PwC (PWC, 2018)

Keywords: esport; esport ecosystem; Hungarian esport; national review

JEL Classification: Z29
The six key components of the model are the game publishers, the media platforms, the players and teams, the competitions, the sponsors and the fans.

Each and every components or “participants” has their own revenue. The heart of the ecosystem are the players/teams. Without them there wouldn’t be a content to watch or follow. Another key element is the competitions as they are the main subjects of export. We can not forget about the game publishers either as they provide the games, they sell the competition and broadcasting rights so their role in the whole ecosystem of the game is indistinguishable. The players’ games through competition make content. And with platforms contents (such as competitions, streams and analyses) reach the viewers (PWC, 2018).

The Publishers

The most involved Publishers in Hungary are Riot Games, Valve Corpora-tion and Blizzard Entertainment. With the unbreakable popularity of League of Legends (61%) the top 5 most popular export games in 2018 were: Riot’s LoL, Valve’s: Counter-Strike: Global Offensive (49%), Blizzard’s: Hearthstone (38%), PUBG Corp’s Playerunknown’s BattleGrounds (35%) and Electronic Arts’: FIFA (20%) (ENET, 2019a and 2019b).

As from the statistics can be seen we get a colorful picture regarding the genres of the most popular games, from CS: GO’s and PUBG’s FPS (First person shooter) games, to the top 5 most popular esport games in 2018 were: Riot’s: League of Legends (45%), PUBG’s: Playerunknown’s Battlegrounds (35%) and Electronic Arts’: FIFA (20%).

The demographic picture also shows that the most active age group with 66% participation is between 18-25 and 25-34. And although men are more likely to play esport contents include only women likes plays video games as well (ENET, 2018a and 2018b).

The Players and Teams

The eNets latest export survey shows that the number of videogame players in Hungary reaches the 60% of the total population. Although at first glance the 3.7 million players seem a lot, it is because of the wider interpretation of the definition of videogame players. It includes those who play casually at least once a week and either on PC, on mobile phone, or on other type of consoles, either online or offline. The demographic picture also shows that the most active age group with 66% participation is between 18-25 and 25-34. And although men are more likely to play esport contents include only women likes plays video games as well (ENET, 2018a and 2018b).

The Future generation seems to catch up as well, as near half of the under-18 age group (48%) plays some type of videogame, with boys (57%) still dominant over girls (35%). The numbers of the so called “hardcore gamers” (playing up to 20 hours a week) doubled up from 2016, when their numbers were estimated to be 200 000, in 2018 it is close to 425 000 (ENET, 2019a). They are those playing esport video games at least once a week, and/or participate in competitions- and/or in esport events. 11% of the hardcore players can be considered as export players with 92% male and only 8% female players.

Although the base of the national esport players is relatively small and the events are rather local and crucial. The number of registration was in year 2016 by 26 000 players.

Besides Twitch, the Google LLC, owned YouTube entered the market as well. From Google’s unsuccessful attempt to buy Twitch in 2014 the co-currence is evident in trying to up Twitch’s viewership. By streaming live export content in its website Google combines YouTube’s traditional video services with export streaming. Although not as effective as its counterpart it seems to be working as in January 2019 22 000 people streamed on YouTube, producing 460 000 hours of live content (PANNEKEET, 2019).

On the third step of the podium is Facebook. In 2017 Facebook made an agreement with Electronic Sports League (ESL) to stream 5500 hours of esport content to its users (NEEDLEMAN and SIETHARMAN, 2017). With its 2.41 billion active users worldwide Facebook and ESL seems to be on the right track to reach more and more people. And to top it all they didn’t agree on exclusivity, thus besides reaching into new grounds ESL still uses other platforms as well.

Besides connecting the players, their contents and the viewer the network and connectivity of the platforms extends through ads to the sponsors and with broadcasting rights to the publishers as well.

Competitions

The top-down approach: With the commercialization of export Blizzard Entertainment launched its first Overwatch League to the shape of the American closed league traditional sport system. With this the aim was to combine full professionalism with e-sports and digital global promotion of sports (SZABELLA, 2018).

The main focus on FIFA.

The bottom-up approach: This type is a mass-based competition. Teams get to the top of the list through qualifications. The system itself does not involve any financial commitment for the teams, there is no entry fee. Anyone start in the qualifiers and through that, if he is talented enough, he can reach the top, giving each player motivation to compete (SZABELLA, 2018).

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The by number of competitions export competitions can be categorized into two groups as well. The one group are the already taking place every year event organized separately where players can compete to get a title. Series where different events are held for different titles.

These types of competitions have a lower prize pool than the single ones, but attract more viewes due to the different genres of the games.

By its nature export competitions can be divided into Online competitions, whereas the name suggests players are required to log in and compete online. And Offline competitions, where players are in the same place at the same time while competing against each other. These types of events have much higher costs due to traveling, accommodations and the virtual infrastruc-ture. Usually bigger Finals are held this way.

From domestic circles there are two main events we would like to highlight. The first is the V4 Future Sport Festival, which was held in 2017 for the first time. Besides pointing out that there is a possibility for the countries of the region to organize successful export events, the main goal was to bring international export closer and to aim the focus on the regions of the Eastern European countries.

In terms of the export players and teams 2017 was a turning point, as 3 export departments were formed. One of the very first is DVTK, sport club of Diösgyőr with the intent on forming teams, giving more opportunity to compete even on international scale. They were followed by MTK and the sports club of Debrecen: DVSC with their main sponsor being a Dutch sports organization AFC Ajax.

Examination of the Hungarian Export Ecosystem Through International Examples
The main differences between the two is, that MNEB is solely market-based with its 15 million Huf prize pool thanks to sponsors like K&H and Telekom (FLANCHER, 2019).

The competitions of the latest season were online based with only the fi-nals held offline. Where players and teams competed in Lol, CS: GO, PUGB, Hearthstone and Rainbow Six Siege.

MNEB held its first ever season from 14th of January to 30ths of April 2019 and managed to get more than 700 000 viewers to tune in to its finals in April.

Sponsors

190 million hours, the equivalent of 21 700 years. That’s the amount of time spent watching the four biggest eSport tournaments in 2018. There is no question that the popularity of eSport is rising drastically. Because of this reason in particular it is no surprise that with its business potential sponsors see it as a perfect marketing tool. The global marketing research firm Nielsen with its Esport24 system measured the value of sponsorship appearances in the finals of this year’s biggest eSports championships. According to the report, it fluctuated $7 500 000 and $ 17 million (ZSEDELY, 2017). The numbers put the points out the opportunities and the overall picture of the fluctuation highlights the gap between this opportunity and the utilization of it. Another positive aspect of the use of eSport as a marketing tool comes from the fact, that its consumers and their interests are very defined which makes them a really good target group for sponsors.

Although there is no exact data regarding the eSport sponsorship in Hungary the market research published by PricewaterhouseCoopers (PwC) about Hungarian eSport categorized revenue into 5 groups. From which sponsor-ship forms the most of the spendings (44.5%, 10.7 billion Huf) the purchase of hardwares and peripheries for mobile-game-streamers/2019.09.29.

CONCLUSIONS

With the lack of domestic literature regarding the Hungarian eSport and with its drastic changes our main goal was to get an overall picture from economic prospect of the national eSport ecosystem’s situation.

From the actions of the last decade it is clear that Hungary see potential in the future of eSport. There are clear efforts that are-streaming-on-twitch-but-youtube-is-the-platform-of-choice-for-mobile-game-streamers https://newzoo.com/insights/articles/more-people-are-streaming-on-twitch-but-youtube-is-the-platform-of-choice-for-mobile-game-streamers/2019.09.29.

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INTRODUCTION

Appropriate management of frustration- and conflict-laden situations greatly influences our interpersonal relationships and has a great effect on our professional efficiency as well as psychological and health condition (McMURRAN AND MCCUIRE, 2005). In today’s world so full of stress (especially in competitive sport, where stress, performance centrality and the danger of injury are always present) it is necessary to familiarise ourselves with the intrapersonal coping modes that people can use to react to both external and internal impacts. Studying and learning coping strategies can promote the development of the selection process and can also serve as a yardstick during the sportsperson’s training process to ensure the most effective work possible since, in addition to secure efficiency, one of the many aims of competitive sport is to prepare healthy people for civilian life.

With regard to coping strategies, we distinguish between positive and negative ways of coping, much like in the case of stress. During positive coping mechanisms, no side effects occur while during use of negative ways of coping there are some kind of harmful effects. According to this, positive ways of coping are sport, relaxation, humour, laughter or crying, whereas some examples of negative ways of coping are alcohol consumption, drug use or (over)eating (KOPP, 1995). Negative coping strategies can be useful during the coping process while they carry some kind of risk, too, as, for example, smoking can cause health problems.

Sport is a positive coping strategy since an appropriate degree of sporting activity is capable of reducing tension, can restore the body’s balance and has no harmful side effects. Sport plays an important role in the prevention and information continuously evaluate transactions in connections with their harmful habits (PIKÓ, 2000; MIKLULÁN ET AL., 2010). However, there is some research that questions the role of sport, and, within it, competitive sport, as a protective factor against alcohol consumption and smoking (VINGENDER, 2003).

The coping mechanisms that we use influence our decisions regarding behaviour, including our health behaviours (PLIHAR AND PIKÓ, 2003). In addition study I placed particular emphasis on mapping and assessing coping mechanisms among competitive and leisure time sportspersons as well as non-athlete individuals. I also examined how smoking consumption and smoking appear on the examined sample as negative coping strategies. Furthermore, I examined the differences between male and female individuals.

II. LITERATURE

Coping strategies are cognitive, psychological and behavioural patterns used by people to overcome, reduce, or tolerate the hardships of a stressful life situation. This effort does not necessarily appear as some kind of action; instead, it can manifest itself in any kind of internal-external and emotional-impulsive behaviour.

In the case of cognitive restructuring, there was a significant difference in favor of sports and recreational athletes versus non-athletes, while in problem analysis and passive coping I found a significant difference in favor of women compared to men. Significant differences were also found in the case of psychosomatic use as substance. Among the three groups, as the intensity of sport increases, the number of smokers decreases. In the case of smoking, a significant difference was found in the coping strategies referring to reduction of the stress in the whole sample. In the case of alcohol consumption, in coping strategies were found significant differences between stress reduction, problem analysis and passive coping.

Keywords: coping strategies, leisure sports, competitive sports, non-athletes

Abstract: The study examines the relationship between coping strategies and smoking and alcohol consumption among athletes, recreational athletes and non-athletes individuals. The factors examined were measured by a validated questionnaire version of Folkman-Lazarus (1980) (Waves of coping) (16 items) and asked about the smoking and alcohol consumption patterns of the respondents. The total sample number was 813 people, of whom 341 were athletes, 292 were recreational and 180 were non-athletes. 54.4% of the sample is female and 45.6% is male. In my research, I focused on mapping intrapersonal coping strategies among athletes, recreational athletes, and the non-athlete individuals, and explored gender differences. Furthermore, how smoking and alcohol consumption appear as a negative coping strategy in the measured sample. As a method besides descriptive statistics the Kolmogorov-Smirnov test was used to verify normality, and the hypotheses were tested with non-parametrized test (Kruskal-Wallis, and Mann-Whitney).

For coping strategies I found a significant difference among the non-, recreational and competitive athletes, and there is a significant difference between genders as well. The study examines the relationship between coping strategies and smoking and alcohol consumption among athletes, recreational and non-athletes. Furthermore, I examined the differences between male and female individuals.
KYPRIANOU ET AL., 2009). All this can have an effect on the individual’s mental condition, too, even potentially causing anxiety, depression, eating disorder or other mental disorders.

In this study I examined diverse coping strategies among young adults. I wanted to find an answer to the question what kind of coping strategies occur among individuals doing competitive and leisure-time sport on the one hand, and non-athlete individuals on the other. My premise was that use of coping strategies can be greatly affected by doing sport and the intensity of that sport. I also assumed differences between male and female sportspeople.

In my study I also investigated the question how smoking and alcohol use as negative ways of coping effect intra-personal ways of coping.

MATERIALS AND METHODS

The basis for my study was my own on-line survey. Sample size was 813 people (N=813), of whom 442 (45.6 %) were females and 371 (54.4%) males. Based on aggregate data, 41.94% of the sample regarded themselves as individuals doing competitive sports, 35.91% leisure-time sportspeople, 22.14 referred to themselves as non-athlete individuals.

17.2% of the respondents were under 18 years of age, 22.0% were between 18 and 29, 29.9% between 21 and 23, 16.7% between 24 and 29, and 14.1% were 30 and over. 48.2% of the respondents were students, 43.6% were in full-time employment with 8.2% employed part-time or receiving some kind of provision. 25.5% of the sample had basic level, 52.0% intermediate level, and 22.5% had higher level qualifications.

The differences are also supported by Table 4, which shows the mean values and distributions of the coping strategies among competitive and leisure-time sportspeople and non-athlete individuals. As can be seen in the table, the mean values of the competitive and leisure-time sports people differ significantly in terms of the cognitive restructuring coping mode from those of non-athlete individuals. Furthermore, in terms of tension-reduction and problem analysis there was a mild difference in favour of the sportspeople while in terms of passive coping non-athletes showed higher values (Table 4).

The differences between the genders are shown in Table 6, too. It was males that showed higher mean values in terms of cognitive restructuring and tension reduction while females showed high mean values in terms of problem analysis and passive coping.

In connection with a life situation that the respondents deemed especially difficult they used a four-point scale to show whether the ways of coping described in the list were typical of their behaviours in the weeks that followed the event and if so, to what extent.

I also assessed the smoking and alcohol use habits of the sample.

Statistical analysis of the data was done using SPSS 25.0 statistical software. In addition to descriptive statistics, I also used the Kolmogorov-Smirnov test to check normality and checked my hypotheses using nonparametric tests (Kruskal-Wallis, and Mann-Whitney). I considered the results of the statistical tests significant at p<0.05.

RESULTS

This study focuses on how conflict-solving strategies work among competitive and leisure-time sportspersons as well as non-athlete individuals.

In terms of the entire sample, Table 1 shows minimum and maximum values of the four factors of conflict-solving strategies as well as means per factor and distribution.

Taking the questionnaire took place on the internet and by personally contacting various schools and sports organisations and sports clubs. Completion of the complete questionnaire took about 12-14 minutes. The full questionnaire comprises sociodemographic variables on the one hand, and eight standardised and reliable measuring tools on the other. In connection with a life situation that the respondents deemed especially difficult they used a four-point scale to show whether the ways of coping described in the list were typical of their behaviours in the weeks that followed the event and if so, to what extent.

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My first hypothesis was that there was a difference between the three examined groups in terms of coping strategies. None of the examined variables having showed normal distribution (Kolmogorov-Smirnov, p<0.05 in each case), I tested this hypothesis using the Kruskal-Wallis H test. The three examined groups showed a significant difference in the cognitive restructuring coping mode (p=0.007) (Table 3).

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My second hypothesis assumed that there was a difference between the genders in terms of coping strategies. I analysed my hypothesis using the Mann-Whitney Test and was able to show that female members of the sample had a significantly higher rate of passive coping (p=0.017) than male members. I also found a significant difference (p=0.001) in terms of problem-analysis as well (Table 5).

The differences between the genders are shown in Table 6, too. It was males that showed higher mean values in terms of cognitive restructuring and tension reduction while females showed high mean values in terms of problem analysis and passive coping.

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As Table 12 also shows, alcohol use appears in three of the factors of coping strategies, and it was only in cognitive restructuring that mean values did not increase together with alcohol use (Table 12).

Table 10: alcohol use

| Source: Own resource |

In terms of psychoactive substance use I examined smoking habits among competitive and leisure-time sportspersons and non-athlete individuals. The female members of the sample showed a significant difference compared with the male members in terms of passive coping and problem analysis.

As my fourth hypothesis, I examined the differences between the groups that did drink alcohol in terms of coping strategies. I analysed my hypothesis using the Kruskal-Wallis H test and found significant differences in tension reduction, problem analysis and passive coping (Table 11).

As my fourth hypothesis, I examined the differences between the groups that did drink alcohol in terms of coping strategies. I analysed my hypothesis using the Kruskal-Wallis H test and found significant differences in tension reduction, problem analysis and passive coping (Table 11).

According to my third hypothesis a difference could be assumed among smoking groups in terms of coping strategies. I analysed the hypothesis using the Kruskal-Wallis H test and the results showed that there was a significant difference in terms of tension reduction (Table 8).

Table 8: coping strategies in terms of smoking habits

| Source: Own resource |

The differences are also borne out by the table below, which shows that mean values differ significantly only in terms of tension reduction. Smokers showed significantly higher means compared with non-smokers (Table 9).

Table 9: mean values and distribution of coping strategies in terms of smoking habits

Table 11: coping strategies in terms of alcohol use

| Source: Own resource |

In terms of alcohol use (Table 12) significant higher values for the coping strategies of tension reduction, problem analysis, and passive coping.

In terms of smoking habits and the frequency of alcohol consumption I found that competitive and leisure-time sportspersons and non-athlete individuals consume alcohol with similar frequency; almost the highest percentage belongs to competitive sportspersons who never or just rarely drink alcohol, a finding which, again, runs counter to previous studies (Grossbard et al., 2007; Veliz et al., 2015).

DISCUSSION

The results of my examination confirmed my assumption that there were differences between competitive and leisure-time sportspersons on the one hand and non-athlete individuals on the other in terms of intrapersonal coping strategies. In difficult life situations competitive and leisure-time sportspersons prefer cognitive restructuring of all the measured coping strategies.

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Frequent alcohol consumption has a tension reducing role in the coping process and is characterised by passive coping. However, moderate alcohol use is accompanied by a significant increase in problem analysing ability. People use different ways of coping in different life situations which are often situation-specific and do not lend themselves to unambiguous generalisation. An unambiguous assessment of coping strategies is made difficult by the fact that in different life situations an individual tends to use the same coping strategy from time to time in the coping process (Schwarzer and Schwarz, 1996). This it becomes understandable that while a particular coping strategy (e.g. praying, eating or drinking, and smoking) appear totally adaptive with reference to a given period, in a later period the used strategies are not necessarily effective.

In my research, which I conducted among competitive and leisure-time sportspersons as well as non-athlete individuals, I examined what kind of coping strategies are used in difficult situations. As a cumulative result we can conclude that competitive and leisure-time sportspersons showed significantly higher values in their use of cognitive restructuring compared with non-athlete individuals. Gender-specific examination revealed that females possess significantly more passive ways of coping than males. I also found significant differences in terms of smoking habits and alcohol use. In terms of smoking the protective role of sport occurs. In the three examined groups the number of smokers decreased together with an increase in the intensity of sport. In the case of smokers tension reduction increases significantly, that is, smoking becomes realised as a negative coping strategy.

In the case of alcohol use I found significantly higher values for the coping strategies of tension reduction, problem analysis, and passive coping.

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European Sport Charter (1997): Article 2


ECONOMIC IMPORTANCE OF THE HUNGARIAN SPORTS SECTOR IN INTERNATIONAL COMPARISON

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Abstract: Sport is one of the most dynamically developing sectors in the world. During my research, I was looking for the answer to why and how the economic aspects of sport have evolved in recent times. I examined and evaluated sports economy indicators for the global (The European Union) and territorial (Hungary) units (for the last twenty years). The need for measurability is constantly increasing nowadays. This can also be seen in the markets of the sports sector, so we can find databases that are increasingly expanding in this sector. I have analysed EUROSTAT databases - with indexing – which can provide relevant information. The research field was two economic aspects, the number of employee and trade in sporting goods. The number of employees was analysed separately by the European Union and Hungary. In the examination of trade in sporting goods The Hungarian trade in sporting goods was compared to the neighbouring European Union countries. Based on my results, I can say that the economic importance of the sports sector has increased within the European Union and Hungary as well because the number of employed people in sports and the trade in sporting goods has increased.

INTRODUCTION

Nowadays people have more leisure time which has resulted in the increased competition between market participants. Sport has a positional advantage in this market because people need motion and physical activity due to their biology. So, sport is one of the strongest participants in this competition. In my research, I have investigated the economic dimension of sports, during the last 20 years.

The economic importance of sport has steadily increased since the 2000s. In recent decades more and more research has appeared in connection with sporting activities (ANDREFF and SZYMANSKI, 2006); in addition, in many disciplines can be found academic research (HUMPHREYS and RUSESKI, 2008). The professionalization and growth of sport has given changes in the production, consumption, and management of sport (HOYE et al., 2018). This demonstrates that sports alone share 2.5 - 3% of world trade (ÁCS, 2015; NÁDORI and BÁTONYI, 2011; NÁDORI, 2000; SZYMANSKI, 2010). The average annual growth rate of the sports market was 7% around 2010. This means that the growth rate of the sports sector has exceeded that of GDP's (COLLIGNON and SULTAN, 2014). The expenditure of private households on sporting goods and services reached $700 billion, which is equivalent to 1% of world GDP (BÁCSNÉ BÁBA et al., 2018).

In the European Union during the past 20 years, already 2% of the gross domestic product could be attributed to the sports sector. Demand for sporting goods and services created annually about €16.5 billion (NÁDORI, 2000). In 2018 the sport-related GDP was 279.7 bn Euros, what was 2.12% of total GDP (EC, 2018). In most of the EU-27 the leisure, cultural and sporting services are in the top three sectors in terms of gross value added (BÁCSNÉ BÁBA et al., 2018). The direct effects of sport and the multiplier effect together contributed 3% of total gross value added (GVA) in the European Union. Also, it can be said that the national income elasticity of the sport sector is 1.14. This means that if the national income grows by 1%, GVA in sport will increase by 1.14% (BÁCSNÉ BÁBA et al., 2018). Reference (EC, 2012) points out that sport belongs to the major economic sector. The economic performance of sport is almost equivalent to that of agriculture, forestry and fishing (BÁCSNÉ BÁBA et al., 2018; EC, 2012). These numbers make it clear that sport is playing an important and growing role in national economies, especially when we can see that its contribution to GDP is detectable. “The GDP stands for Gross Domestic Product and represents the total monetary value of all final goods and services produced (and sold on the market) within a country during a period (typically 1 year)” (KSH, 2015; WORLDOMETERS, 2019).

Reference (WHO, 2018) summarized the percentage of GDP for health, education and sports in The European Union in 2018 (Table 1, Table 2).
On the other hand, the data can be compared among the neighbouring countries of Hungary (Austria, Croatia, Romania, Slovakia and Slovenia). In the rank of GDP per capita, Hungary is the third after Austria and Croatia. The Health (GDP) rates are higher than 6.5% in neighbouring countries – except for Romania with 4% and Hungary with 4.8%. In the case of Education (GDP), Hungary is the same as Austria, and only Slovenia has a higher rate of gross value added. In this comparison, it can be said too that Hungary has the highest proportion of Sports (GDP) among the neighbouring countries (Table 2).

### MATERIALS AND METHODS

During my research, I used several databases. These databases were downloaded from the Eurostat system, which I revised and used to create my own database. Databases provide an all-round picture of sports employment and trade in sporting goods.

The number of employees was determined by considering gender, age and qualification between 2011 and 2017. In these classifications, I created more sub-categories based on 1-1 additional criteria. The number of employees was grouped then divided into gender: male and female. The data is presented in three age groups by year: 15-29, 30-64 and over 65 years. The qualification group has three sub-categories based on the International Standard Classification of Education 2011 levels (ISCED 2011). The first sub-category is the 0-2 levels, which includes early childhood education, primary education and lower secondary education students. The second sub-category includes the 3-4 levels, which comprise upper secondary education and post-secondary non-tertiary education (e.g.: OKJ education). The third sub-category is the 5-8 levels, which includes the short-cycle tertiary education, bachelor, master, doctoral or equivalent students (ISCED-2011; 2019).

The database of trade in sporting goods contains the turnover of sports products value in Euro. Exports and imports were presented in two different group, intra-EU28 and extra-EU28. The intra-EU28 criteria means that the trading partner is a member of The European Union. The extra-EU28 criteria means that the commercial partner is not a member of The European Union. According to the description of the database (EUROSTAT, 2019), sporting goods are understood as follows: ski and ski-related equipment, skate, water sports equipment, golf, racket (tennis and badminton) equipment, balls, gymnastic, sporting and swimming equipment, fishing equipment, bicycle, parachutes, sportswear, shoes, shooting equipment.

During my research, I have done an economic analysis, from which I chose to index. The index numbers can characterize economic phenomena, consistency and results by quantitatively. The statistical index numbers are usually derived dates. The most common types of derived numbers are ratios, averages, and indices (SÁNDOR et. al, 1997). Using this method of analysis, two areas of the sports economy were examined.

### RESULTS AND DISCUSSION

In this chapter, I would like to present my results. The results are presented in the subdivision of the two examined areas, employment in the sport sector trade in sporting goods.

#### Employment in the sport sector

First of all, I would like to present the study of sports employment in general with the help of Figure 1 and 2. I can say that both the figure and the columns represent the number of employees, and the lines represent the sport employees ratio of total employees.

![Figure 1: Evolution of employment between 2011 and 2017 in Europe](image1.png)

The number and the ratio were also steadily increasing between 2011 and 2015 in Hungary (Figure 2). In this period the number of professionals in sport increased by eight thousand, which means an increase of 0.13% in total employment. After that, the numbers and the ratio decreases by about three thousand people and 0.05%. On the one hand, it’s surprising because the training offered as by the sports federations and the number of participants in higher education courses is constantly increasing. On the other hand, many employees have become self-employed persons due to more favourable tax conditions, and those people were not included in the number of employment in the sports sector.

The division of the employed by gender (Figure 3) shows an average of 62-38% between men and women. During the period under investigation, the gender ratio shows the majority of men, except one year (2013) when the number of women was larger than the men.

![Figure 3: Division of Hungarian sports employees by gender](image3.png)
In conclusion, sport is becoming a growing industry and its economic importance is continuously increasing in the European Union and Hungary too.

ACKNOWLEDGMENT

The publication is supported by the EFOP-3.6.2-16-2017-00003 project. The project is co-financed by the European Union under the European Social Fund.

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Table 4 shows that the data grouped by the qualification of the employees. According to the data, the majority of the employees have a qualification level of 3-4 based on ISCED11. It is also noticeable that between 2011 and 2015, the number of those with levels 5-8 increased more than those with lower levels. This is a positive thing, because the number of employees who have higher qualifications increased in the Hungarian sport sector, so it can be assumed that those people have higher competence.

Trade in sporting goods

In this chapter, the Hungarian trade in sporting goods is compared to the neighbouring EU countries between 2005 and 2014 (Table 5, Table 6).

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Table 5 shows the evolution of Hungarian exports in sporting goods between 2005 and 2014 in comparison to neighbouring countries. The benchmark was the annual export value of Hungary in thousands of euros. The base ratios for the other countries were calculated relative to the Hungarian value of Hungary in thousands of euros. The base ratios for the other countries were calculated relative to the Hungarian value. In summary, therefore, it can be said that the Hungarian export activities in sporting goods constantly improved during the period researched.

The evolution of Hungarian import in sporting goods (Table 6) is favourable compared to neighbouring countries. Serbia is the only one who constantly imports less than our country, and all the other import a higher amount than Hungary. Compared to Austria, the figures for the beginning and the end of the period have decreased proportionately although the values have continued to increase. The total value of import in sporting goods has increased by about 60% under the research period in the case of Hungary.

The imports and exports were presented in two different groups, intra-EU28 and extra-EU28 (Figure 4). The Intra-EU28 criteria shows how our trade value evolved with the members of the European Union. During the research period, exports were much more dominant than imports in Hungary. The export value was much higher than in 2005, 2006, 2007, and 2008. However, from 2009 onwards, a decrease in imports was observed. In 2013, the export value was higher than in 2005. The export value continued to increase in 2014. The import value, on the other hand, decreased from 2005 to 2014. In 2014, the import value was lower than in 2005. The import value continued to decrease in 2015. The total trade value for Hungary has increased by about 60% under the research period in the case of Hungary.

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WHO (2018): Physical activity factsheets for the 28 european union member states of the who european region, WHO Regional Office for Europe

CHARACTERISTICS OF PHYSICAL ACTIVITY AT THE UNIVERSITY OF DEBRECEN

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Abstract: The assessment of physical activity is a much-researched field. Physical inactivity has negative consequences. In the development of diseases, a key risk factor is insufficient exercise. Emphasizing the relation between physical activity and health is a constantly discussed matter. UD-FCSNE students will play a key role in educating children for a healthy lifestyle. They will become teachers and specialists. Mapping students’ motives concerning physical activity, we can see the order of motive factors and the factors influencing the different age groups. The majority of students exercise less than 30 minutes per day. Most of them do leisure sporting. To increase physical activity we must provide leisure sporting facilities, based on the population's needs. Maintaining and increasing fitness are chief motivational factors, unlike expectations and competition. The order of motives is significantly different. These differences occurred in five categories. There is a difference in physical activity between full and part-time students.

INTRODUCTION

PHYSICAL inactivity is a serious problem in many countries of the world, including Hungary. According to various statements, approximately 20% of the population exercises regularly. According to the studies of ÁCS et al. (ÁCS, 2011), 53% of the population do not exercise at all, and 24% of them carry out physical activity 1-3 times a month, so 77% is defined not to exercise enough. The work mentioned above (ÁCS, 2011) states, based on data from the National Health Insurance Fund (now OEP, i.e. National Health Insurance Fund Manager), that the diseases and complications due to physical inactivity cause annually an average of 9.1 billion HUF additional cost to OEP (ÁCS, 2010) through the practitioners. These results were also supported by recent research. In my research with students from the Faculty of Child and Special Needs Education at the University of Debrecen (UD-FCSNE), I wanted to examine the components and motivational background of regular exercise. With my theoretical and practical work, I would like to facilitate the widespread distribution of the elements of healthy lifestyle that are related to physical activity at both local and national level.

The change (increase/decrease) in physical activity is combined with economic effects. In addition, these effects show a different character for different age groups. Research into physical activity has gained a new impetus over the past decade. The number of research papers in the matter has grown in the fields of social and natural science alike. Table 1 gives a possible system for scientific papers. In terms of my research, I consider the economic, medical as well as the sports and health sociological approaches to be important.

Table 1

Scientific works dealing with the effects of physical activity

<table>
<thead>
<tr>
<th>Physical activity</th>
<th>Economic approach</th>
<th>Health approach</th>
<th>Sports/Health-sociologic approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ding et al, 2017</td>
<td>Apor, 2009</td>
<td>Ding et al, 2017</td>
<td>Apor, 2009</td>
</tr>
</tbody>
</table>

Source: own work
The complex mechanism of physical activity can be observed in Fig. 1 below, in which we can identify multiple transfer effects. In the illustration, an ideal process is displayed: the increase in physical activity. In this case we can see a positive transfer, that is the expansion of positive effects caused by the increase in physical activity. In this context, the research of Doward et al is a guideline. A positive change causes the individual's health and general well-being to improve. It also preserves their physical/mental health in the long term.

**Fig. 1 The complex mechanism of physical activity**

Source: own work, based on Ács et al. (2015)

### THE CONCEPT OF HEALTH

Many interpretations of the concept of health have been seen. Back in the middle of the 20th century, health was stated not only to be a lack of disease. It was also a state of physical-psychological-social well-being. In addition to the physical dimension, mental-social-spiritual dimensions also play a role. Functional approaches to health have emerged, which were developed into a system by Füzesi et al. The key to a functional approach is the ability of an individual to carry out various activities in the context of their social involvement. The topic of health also includes the so-called dimensions of productivity and the number of sick leave days. Bleyer-Saliterer has systemized the positive effects of physical activity from the perspective of employers and employees. Some negative factors such as the number of days of sick leave in which the likelihood of developing chronic diseases/tendency to have infarction/fear-depression/probability of locomotor system diseases decrease. Performance/mood/concentration/stress resistance/self-assessment/well-being improve. In addition to physical development, personality development (co-operation, fair play, the ability to deal with failure and success, problem solving, decision making, perseverance) is also of paramount importance. These capabilities also play a decisive role in maintaining and strengthening work positions.

The improving health indicators have an impact on the national economy as a whole and can contribute to a reduction in health expenditure. Quoting Ács et al, I can state that the expenses of the National Health Insurance fund management could be reduced by more than 9 billion forints per year, by a 10% increase in physical activity.

Recently, COI (cost of illness) research has been promoted to quantify the burden of inactivity. Katmarczyk et al established a consistent relative risk ratio, based on the link between risk of diseases and increase in inactivity. The advantages and disadvantages of research in this direction have been summarised by Gábni et al. The works quoted are examining the costs of inactivity from a similar perspective. Such representations are that of the viewpoints of households, the corporate sector, the health system and the whole of society.

Increasing activity is not only a domestic goal. It is often considered that the global alarm should be sounded/heard more strongly because the negative consequences of inactivity occur globally. We face global civilisation challenges (SOÖS et al.: Homo sedens type of man/lifestyle, unhealthy diets, use of smart appliances). Physical activity can be one of the greatest weapons in our hands in this struggle.

Of course, before the development and introduction of measures to increase physical activity, the mapping of the motives of the different age groups related to sports activities should be carried out. To do so, the appropriate instrument according to Frederick and Ryan, it is possible to use Pelletier's questionnaire on physical activity and leisure time. This work divides the individual's motivational background into eight segments. We have a continuously expanding literature on secondary research. We also have international and domestic reports that provide a good basis for comparison. Ainsworth draws attention to an important methodological question. The results of subjective methods (questionnaire, activity log, observations) that can be used more easily and on a larger sample, may not always be supplemented by the quantifiable results of objective methods (accelerometer, Holter test, laboratory test).

According to Eurobarometer data, Hungarians are not prominent in the field of sports and physical activity. In accordance with the EU trend, in Hungary the proportion of those exercising daily has declined and that of those who never exercise has grown. The answers reveal what factors form the main obstacle for Hungarian people.

The development of an individual's attitude towards healthy lifestyle takes place in a multi-factor field of force. We talk about a dynamically changing system. Educational institutions and other external factors influence the motivational base for exercising. Ideally, the institution should take a complementary role rather than a compensating one.

In Fig. 2 below, we can recognise external effects influencing our lives, highlighting the possible role of the Faculty of Child and Special Needs Education in shaping the individual's lifestyle.

**Fig. 2. Factors that influence the individual's lifestyle**

Source: own work

### MATERIAL AND METHOD

When collecting the data, I used a questionnaire method, posing the questions of internationally validated questionnaires (PALMS, IPQ). Online questionnaires sent via the university mailing system were randomly answered by 357 students. Number of full-time students: 187, Part-time: 170; 97% of the respondents are female.

In addition to the socio-demographic data, my 28-item questionnaire gathered information about the characteristics of the physical activity of the individual, their health status, attitudes to sporting/leisure sporting. In addition to the descriptive statistics, I performed cross tab analysis, variance analysis and non-parametric tests during the processing. In my study, I explored the physical activity of full-time and part-time students, as well as its components. I also analysed the motivational background of exercising (health preservation, enjoy physical appearance, building/strengthening of social relationships, performance enhancement, recreation).

### RESULTS

In terms of time spent on sporting, it is a sad result that 62.5 percent of students spend less than 30 minutes per day doing sports activities. As for the from of exercising, most respondents prefer leisure sporting (89.9 percent). The high proportion of those choosing leisure sporting contradicts the data showing similar proportion of respondents who exercise less than half an hour. This means that two-thirds of the respondents either don’t exercise at all or exercise insufficiently. This research also supports the hypothesis that one of the most successful ways to increase physical activity is the expansion of leisure sporting. We must achieve that considering the population’s income and their motives for exercising.

I investigated the students’ satisfaction with sporting facilities regarding their own residence, i.e. Hajdúböszörmény, physical education classes, and the university’s extracurricular programmes. The respondents are most satisfied with PE lessons and the facilities at their own residence. They...
considered the facilities provided by the faculty’s hometown the least sufficient. This is confirmed by my own experiences. In the case of motivation factors for sporting, we can observe that the preservation and improvement of physical fitness shows the highest value (72.5 percent), but more than half of the respondents considered four other categories (mental state, individual development, enjoyment, physical appearance) very important motivational factors. We can also find similarities with (a different sign) regarding the expectations of others and the competition category. Those were rejected by the majority of respondents with a significant difference.

A question arises. Is there a significant difference in the importance of motivational factors between the students in the two forms of training? I performed a non-parameter test to answer it. According to the results of the Mann-Whitney test, there is a statistically significant difference between the two groups in three categories. These are physical appearance, individual development and mental state. Full-time students prefer the first two motives, while part-time students the third one.

In Table 2 below, I will summarize the similarities and differences between the two groups, in the context of motivation for exercising.

<table>
<thead>
<tr>
<th>Difference</th>
<th>Similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>full-time: appearance/mastery</td>
<td>others’ expectations - /competition --</td>
</tr>
<tr>
<td>part-time: psychological condition</td>
<td>physical condition +</td>
</tr>
</tbody>
</table>

Table 2: Full-time and part-time students’ motivation for exercise

The Faculty must develop Physical Education and leisure sporting facilities, based on the knowledge we have gained. With respect to the experience-oriented approach, emphasis should be placed on the creation of a spiritual/mental balance, while developing locomotor skills.

In the full-time section facilities should include forms of body shaping exercise (weight control, muscle hypertrophy), introducing new methods/tools. In the part-time section the same goes for the spiritual/mental balance (relaxation techniques, yoga-based exercise, walking, hiking).

I consider it important to expand the scope of sporting facilities for part-time students, as their level of activity is lower.

I trust that after the accomplishment of a well-developed long-term strategy that takes the students’ peculiarities into consideration, I can give an account of improving trends in a few years’ time.

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Pécsi Tudományegyetem Egyetemi Szemle, Vol. 6, p 112.


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PORK PRODUCTION AND CONSUMPTION ISSUES FROM THE PERSPECTIVE OF THE RELIGION AND THE WORLD’S GROWING POPULATION

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Abstract: In this article we would like to present the production and consumption issues of pork meat in the world. We intend to examine the production and consumption of pork meat from the point of view of the population. The growing population of the world requires an increasing amount of food, especially animal source of protein, ie meat. We want to examine how the world can supply the growing population with food, including (pork) meat. The growing population generates ever-increasing consumption from year to year, and may not be able to satisfy it, adequately supplying the population with food, especially (pork) meat. Livestock farming, especially extensive animal husbandry, will be less able to produce sufficient quantities of meat for the growing needs.

During the analysis of food (meat) data we would like to present the difference between each continent on both the production and the consumption side. Examining the pork consumption, it should be mentioned the differences in the cultural habits, because the pork meat is the most affected in religious restrictions, regulations. The religious affiliation/identity is basically determined by the food and consumer habits, too. Due to the differences in dietary habits and religious culture, we think that the consumption of pork can be highly variable in the world and from country to country as well.

In general, we would like to answer questions about how the world (pork) meat production is going, is the meat consumed in the countries where it is produced (export – import issues), what are the factors that influence (pork) meat consumption (culture and religion impact on pork consumption, animal health issues), and is there enough (pork) meat for the world’s growing population.

INTRODUCTION

It is generally agreed that population growth, together with an increase in average per capita incomes, will result in higher pressure on natural resources and biodiversity (e.g. Foley et al., 2011). Feeding, housing and meeting the other needs of more than 9 billion people in the coming two to three decades will pressures on ecosystems worldwide. People living in cities now outnumber those living in rural areas (United Nations, 2014). Projections indicate that population growth in cities and small rural towns, along with the number of people migrating from rural to urban areas, will continue to increase (FAO, 2019B).

One of the most important challenges of the world to produce enough food for the growing population of the Earth. The food production needs to be increased not only because of the growth in population but also because of the changing dietary habits. While the agriculture tries to produce more food they have to solve several problems. Increasing need for water, soil degradation and climate change – these are only a few of the most important problems we are facing right now (Kőmíves et al., 2019).

The world’s population continues to grow and over the next 40 years, agricultural production will have to increase...
The world's population doubled during the last 50 years, while the meat production of the world increased more than fourfold (Szilősi et al., 2017). Poultry meat production increased the most significantly, because intensively kept chicken, eggs, and processed meats are often fewer in sales, and the growth of rural depopulation, fuelled largely by outmigration to the countryside in the near future, at least at global level. At regional or local levels, however, there are already cases of rural depopulation, fuelled largely by outmigration to neighbouring, or more distant, town or cities, or to other countries (Gray and Bilborow, 2014; Chen et al., 2014).

Globally, urban development is a significant direct driver of land-use change, deforestation and habitat fragmentation (Elmqvist et al., eds., 2013). However, it also has numerous effects on (inter alia) lifestyles and consumption patterns, social and political attitudes, and the organization of production and supply chains, all of which can have knock-on effects on biodiversity, on a range of scales. For example, as people move to cities they tend to depend increasingly on purchased foods, often from a few supermarket chains (Macefadyen et al., 2015). They also often adapt to lose ties with rural areas and rural foods, and to focus on processing foods rather than fresh foods (Popkin, 2017).

The international food trade has undergone major changes both horizontally and vertically in recent decades. Consumer preferences are now more diverse worldwide for hypermarkets and supermarkets, discount stores, and for wholesalers also (Fenyves et al., 2017).

While supermarkets and other modern retailers can make a more diverse product portfolio available to more people, they can also encourage the consumption of energy-dense, nutrient-poor, highly processed foods and reduce the ability of marginalized populations to purchase the food needed for a high-quality diet (Hawkes, 2008). This often has negative consequences for nutrition, health, and the environment, and no similar study has been made in the past (Fenyves et al., 2018). In this study, we did a calculation analysis to adjust the per capita consumption of pork in the world. The available data is relatively difficult to obtain and several sources had to be examined to find the appropriate, relevant data for the calculation. The required data on pork consumption were obtained from the FAOSTAT database, where the latest data are from 2018. World population data and religious affiliation were calculated based on Pew Research Center website. The calculation methodology is structured by first identifying the total amount of consumption in the world from the FAOSTAT database in kilograms, and then the world population in head. These two data gives the ratio of per capita pork consumption in the world, in kilograms for that year. After that we divided the world's population - according to Pew Research Center website - by using ratios of different religions. By dividing the world's population by religion, we add up those people who do not eat pork because their religious, cultural differences, restrictions (Muslim, Hindu, Buddhist, Jewish people). Then we deducted this result from the world's total population. So we identified the world population that is not religiously restricted in pork consumption they are the ‘real pork consumers’. After that we divided the total pork consumption in the world (kilograms) with the “real pork consumers” (per capita), resulting the world corrected pork consumption indicator (kilograms / capita / year).

RESULTS AND DISCUSSION

Nowadays, the world population continues to grow more slowly than in the recent past. Ten years ago, the world population was growing by 1.24% per year, in 2014 it is growing by 1.18% per year, and it gives approximately an additional 83 million people annually. The world population is projected to increase by more than one billion people in 2030, reaching 8.5 billion people, and to increase further to 9.7 billion in 2050 and 11.2 billion by 2100 (UN, 2015). From 2050, the high-income countries would reach their maximum population size by 2040, low- and middle-income countries would see only slow declines in growth over the medium and even the long term. There are also considerable differences in population growth rates within low-income countries. Asia, the most populous continent, would reach its population peak between 2050 and 2060. East Asia is expected to see a continued and increasing deceleration of growth rates and a shrinking overall population after 2040. South Asia will continue to grow beyond 2070 and only reach its zenith sometime after that point. Growth is also expected to slow in Latin America, but more moderately, and the region will not reach its maximum population size before 2060 (FAO, 2017).

In sharp contrast, the population of Europe is expected to decrease between 2015 and 2050. Several countries are expected to see their populations decline by more than 15% by 2050, including Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Japan, Latvia, Lithuania, Republic of Moldova, Romania, Serbia, and Ukraine. Fertility in all European countries is now below the level required for full replacement of the population in the long run (around 2.1 children per woman, on average), and in the majority of cases, fertility has been below the replacement level for several decades (UN, 2015). Since 2000, the population of EU 28 has grown by around 0.5% per year (Glaeser et al., 2016).

Rapid growth is projected for the Near East and North Africa region, where increases come to a halt only after 2080. The only region where the maximum population size will not be reached within this century is Africa. While the region's growth rate will continue to decelerate, its population is set to continue to expand beyond the end of the century and is going to show a different scale. According to FAO statistics, the meat production of the world increased nearly doubled in the last two decades, while the amount of pork production increased to a lesser extent. As a result, the amount of pork meat produced in the world in 2015 (16.6 million tons) exceeded the amount of pork produced in the same year (116.4 million tons), but the proportion of pork and pork was different in the various examined countries and regions. In 2016, the EU 28 produced 6.8 million tons of pork (14.3 million tons) and this proportion is not expected to significantly change in the upcoming decade either (FAO, 2017).

The aims of this study are understanding the demographic changes that are likely to unfold over the coming years, as well as the challenges and opportunities that they present for achieving sustainable development and sustainable pork (meat) consumption. It is important to examine and calculate the “real” per capita consumption among those people who consume pig meat, because this new calculated data gives a closer look at the real numbers and the real consumers.

MATERIALS AND METHODS

To evaluate the growth of the world population, the urbanization we examined several forecasts: FAO, OECD, United Nations and other statistical reports and databases, we used tables, figures, diagrams to illustrate these projections. Consumption of meat is an important sector within the food industry, and no similar study has been made in the past (Fenyves et al., 2018). In this study, we did a calculation analysis to adjust the per capita consumption of pork in the world. The available data is relatively difficult to obtain and several sources had to be examined to find the appropriate, relevant data for the calculation. The required data on pork consumption were obtained from the FAOSTAT database, where the latest data are from 2018. World population data and religious affiliation were calculated based on Pew Research Center website. The calculation methodology is structured by first identifying the total amount of consumption in the world from the FAOSTAT database in kilograms, and then the world population in head. These two data gives the ratio of per capita pork consumption in the world, in kilograms for that year. After that we divided the world's population - according to Pew Research Center website - by using ratios of different religions. By dividing the world's population by religion, we add up those people who do not eat pork because their religious, cultural differences, restrictions (Muslim, Hindu, Buddhist, Jewish people). Then we deducted this result from the world's total population. So we identified the world population that is not religiously restricted in pork consumption they are the ‘real pork consumers’. After that we divided the total pork consumption in the world (kilograms) with the “real pork consumers” (per capita), resulting the world corrected pork consumption indicator (kilograms / capita / year).
food and nutrition have been, and are likely to continue be, affected by the changes brought about by urbanization (FAO, 2017). Consumption of cereals and other crops will decline while consumption of vegetables, fruits, meat, dairy products and fish is expected to increase. Increasing demand for semi-processed or ready-to-eat foods will lead to further concentration in the food chain (FAO, 2011).

To sum up the most important effects of urbanization on the food industry are: changing consumer habits, increasing demand for processed foods; the increasing importance of retail chains in distribution; increasing food wastage, which is more pronounced; increasing the distance between the place where food is produced and consumed; increasing packaging; people are moving away from nature; people do not want / can prepare food ingredients (e.g. peeled vegetables, etc.), etc. That's how it is.

In addition to urbanization, the culture, the religion affects our food consumption too. Religious groups have independent beliefs, attitudes and rules. There are some religious restrictions that have a significant impact on food consumption. The three most significant are the Muslim, Hindu and Israeli populations. We can see on the Table that, the highest proportion of number of people has the Christians, this religion hasn't got any restriction in food consumption. The second biggest number has the Muslims, and the third the Hindus. There are restrictions in Hindu, Muslim and Jewish religion. The Hindus do not consume beef meat, and there are many vegetarians among the Hindus. In Jewish and Muslim religion do not consume pork meat. The Jewish population won't be growing significantly, but the number of Muslims will increase in the future. From 2010 to 2050 the proportion of Muslims from 23% will grow to around 30%, and to 2100 it will be more than 31%, it will be as the same, like Christians.

We can conclude from Table 1 that, the proportion of Christians (31%) and Hindus (15%) will be the same in 2050, the number of Muslims will be increase from (23% to 30%), and the proportion of another religion groups will decrease in the future.

Table 2: the world meat market (production, trade, consumption) in 2017 and 2018

<table>
<thead>
<tr>
<th>PRODUCTION (million tons)</th>
<th>2017</th>
<th>2018</th>
<th>2019 forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beefive meat</td>
<td>69.6</td>
<td>71.2</td>
<td>71.6</td>
</tr>
<tr>
<td>Poultry meat</td>
<td>123.3</td>
<td>124.8</td>
<td>128.4</td>
</tr>
<tr>
<td>Pork meat</td>
<td>119.8</td>
<td>120.5</td>
<td>115.6</td>
</tr>
<tr>
<td>Divine meat</td>
<td>15.2</td>
<td>15.2</td>
<td>15.3</td>
</tr>
<tr>
<td>Total meat production</td>
<td>332.4</td>
<td>337.3</td>
<td>336.5</td>
</tr>
</tbody>
</table>

We can see in Table 2 the meat production and trade by the types of meat in 2017 and 2018.

Table 3: The world pork meat market (production, trade, consumption) in thousand tons 2017-2025

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<tbody>
<tr>
<td>Production</td>
<td>118</td>
<td>120</td>
<td>121</td>
<td>122</td>
<td>123</td>
<td>124</td>
<td>125</td>
<td>126</td>
<td>127</td>
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<tr>
<td>Imports</td>
<td>110</td>
<td>111</td>
<td>114</td>
<td>117</td>
<td>120</td>
<td>123</td>
<td>126</td>
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<td>130</td>
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<tr>
<td>Exports</td>
<td>98</td>
<td>100</td>
<td>102</td>
<td>104</td>
<td>107</td>
<td>110</td>
<td>113</td>
<td>116</td>
<td>119</td>
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<tr>
<td>Consumption</td>
<td>116</td>
<td>118</td>
<td>120</td>
<td>122</td>
<td>124</td>
<td>126</td>
<td>128</td>
<td>130</td>
<td>132</td>
</tr>
<tr>
<td>Per capita meat consump.- world (kg/year)</td>
<td>43.0</td>
<td>44.0</td>
<td>44.0</td>
<td>44.7</td>
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Source: own construction based on OECD-FAO, 2018

According to recent FAO reports global pig meat production is forecasted at 115.6 million tonnes, a decline of 4.0% from 2018. The contraction principally reflects a sharp fall in China, which is expected to outweigh expansions especially in the United States of America, Brazil and the Russian Federation. Meanwhile, pig meat output in the EU is forecast to remain stable (FAO, 2019a). The biggest pork importer countries are China, Japan, Mexico, Republic of Korea, and USA. These five country takes 70% of the global import, China has alone a huge effect of global import. China could realign the map of the world pork meat market. The main exporter countries are EU 28, USA, Canada, Brazil, and Mexico. These five country takes 92% of the global export, it is a very large figures. It is thought that these 5 countries could account for 90% of global meat. If we focusing only for pork consumption, we can conclude that is 12.3 kg per year for an average person in the world (OECD-FAO, 2019). But we previously talked about religion rules that has significantly effect for pork consumption, because Jewish, Muslims and maybe the Hindus doesn't consume pork. So we corrected this per capita pork consumption FAO data, so we divided the population into religious groups, and we removed the number of Muslim and Jewish population, and divided this data (population with the utilization of pork meat, and we get the 20.6 kg/year consumption level of pork. In the second case we corrected the number of population even with the Hindus. This two corrected data is very far from the FAO data, nearly double. This way we can get the real pork consumers, who eat a lot more pork, than what we think, and the FAO statistic said. Consumption data of pork is only 14.2 kg, so we can conclude (in this case) that pork is the most consumed meat.

In addition to the factors mentioned above, there are some sudden changes, which may transforming the pork meat consumption in the world. The outbreak of African Swine Fever (ASF) in East Asia (especially China) has a strong impact on meat markets.

Reports by government officials, industry sources and news media suggest that around 20% of China's pig inventories had already been culled in the first few months of 2019, amid fears of ASF spreading more rapidly. In many provinces, cull rates in excess of 20% have been reported (FAO, 2019a). To take a closer look at ASF in China, the Ministry of Agriculture announced that July's pig and sow inventory had decreased 32.2% and 31.9% from July a year ago. If we use China's inventory of 440.6 million in 2018 (Table 4) that decreased with 32.2%, we can calculate a decrease of 140 million pigs compared to a year ago. That decline is almost equal to all the pigs in Europe. We suspect that China's government estimate of 32.2% decline could be conservative. All countries' projects 50% culls. There is a massive decline of pork supply in China, and it will be a huge increase in China's import. It would be huge pressure on the Chinese government to increase pork and other meat imports to hold food prices down. African Swine Fever could be a problem in other countries, because it will be observed in Mongolia, and several countries in Europe (Internet 1).
In China, official notifications had confirmed 129 ASF outbreaks and the culling of more than 1 million pigs by April 2019. In addition to culling, in an effort to keep the spread in check, the Government is creating separate, self-sufficient zones and ban the cross-regional transport of animals and products. However, the continued relevance of backyard farming and the use of food waste as animal feed make controlling the spread extremely challenging. There is a lively exchange of all sorts of pork products within the region, including sausages, cured meats and other processed pig meat products. They may all contain the ASF virus, which is highly resistant to all but boiling (sausages) and can persist for months or years. This means that the chances of ASF to spread far and fast are not only high, but also that the disease may resurface in the region even years after the initial outbreak (FAO, 2019).

Due the ASF the newest data shows significant rise in global demand, production of EU pork meat for exports is expected to increase in the short term. The EU and the Americas are expected to increase their exports to satisfy world pork meat demand. High prices could lead to a stronger decline in EU consumption than previously anticipated. In the case of the Americas, per capita consumption will also rise (EC, 2019).

**SUMMARY**

According to the latest reports we can conclude, that the world’s population by 2050 will reach 9.1 billion. This population growth will increase primarily in developing countries. Urbanization will continue rapidly, and it will also affect food consumption patterns. Income levels will be many times higher than they are today, more and more people can afford to buy pork meat. The demand for pork consumption will change significantly in the future, the reasons are in addition to population growth and urbanization will be religious issues, environmental/climate problem, healthy lifestyle, lower meat availability in local market. Feed this larger, more urban and richer population will be a big challenge of the 21st century.

These affecting factors will lead to change the consumer basket, the reason for the change in the consumption structure may vary from country to country. These consumer changes will have a major impact on food production and trade also. Changing consumption patterns especially in pork meat will lead to changes in the structure of meat production, it will also to stop the spread of ASF. In the near future we have to pay attention to the consumption of beef and poultry with pork (FAO, 2019). It is highly resistant to temperature and other treatments (salting) and can persist for months or years in the environment.

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RESEARCH AND EDUCATION IN AGROBUSINESS IN
MOSONMAGYARÓVÁR – THE 200-YEAR HISTORY

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Abstract: In 2018, the Faculty of Agricultural and Food Sciences of Széchenyi István University celebrated the bicentenary of its predecessor’s foundation. Agrobusiness courses played an important role in the university’s agricultural engineering program throughout this major time period. The aim of this study is to examine how the titles, the content, and the significance of the courses changed during the institution’s important periods. Institutional history publications and the academic textbooks of great professors provided the basis of this research. Business administration, accounting, and agricultural estimation studies courses were already dominant in the first curricula. Later, courses concerning business and agricultural economics gained more ground and were accompanied by other fields of study: agricultural statistics, agricultural politics, agricultural history, and agricultural economics. During this 200-year period, the education of economics and other social science courses was done within the departments of agricultural economics and marketing, work organization and factory management, and social science and business operations, with the contribution of internationally renowned professors: Pál Sporzon, Richárd Suschka, Árpád Hensch, Károly Világhy. The Hungarian Royal Economics Academy (1874-1942) can be considered as the first prime of the agricultural economics education. From the 1900s onwards, the courses became more specialized, their numbers continuously grew, the disciplines expanded, and the number of departments increased. The second prime is the first decade of the 2000s, when besides the traditional agricultural programs, the institution started teaching economic agricultural engineers in its undivided 5-year training. They were the most popular agricultural engineers in the labor market due to their well-balanced knowledge in agriculture and economics, as well as their excellent leadership skills. Having abandoned the economic agricultural engineering program, the institution currently educates, besides other agricultural majors, rural development agricultural engineers, whose skills the labor market does not know very well. The proportion of business related courses show a significant decline in the curriculum of traditional agricultural programs as well.

Keywords: Széchenyi István University, agricultural higher education in Magyaróvár, bicentenary, agricultural engineering program, agro-economics, rural development
(JEL Classification: N30)
Hungarian higher education of agricultural studies. Partially this book, and potentially Sándor Bánvárt’s 1927 book provided the basis for two institutional histories: one written for the 150th anniversary of the foundation of the Private Institute by Antal Vörös, and one written for the 175th anniversary by Gyula Wallehsahen. Antal Tenk finished his book, titled Dicső műlünk, for the bicentenary year, which presents 200 years of history of the instead of an emphasis on the biographies of great Hungarian professors. The changes in the content and emphasis in the courses of agricultural higher education can be traced with the help of historic works. Courses related to agro-economics, as well as the materials of business administration and leadership has been present on the educational palette of the institution. In connection with the jubilee, the long time period allows for the examination of the role and contents of the research studies. Analysis is also based on primary sources such as academic textbooks written by significant figures of business and rural development in contrast to core subjects like cultivation, livestock breeding, and other foundational courses.

**MATERIAL AND METHODS**

The research is based on books published for jubilee, books concerning the history of the institute, as well as academic textbooks written by significant figures of business studies. Analysis is also based on primary sources such as original curricula and course descriptions.

The structure of the paper follows the eras of the institute with special emphasis on important milestones. The following domains were developed after the general characterization of the institutional era (length of program, language of program, title of qualification, and the heads of the institute):

- what titles are given to the agro-economic and rural development courses in the curriculum
- within what areas
- what educational framework does the teaching of the courses occur
- which significant professors are connected to the research and teaching of agro-economics, along with their most important academic textbooks
- the hours appointed to the examined courses in the timetable
- the proportion of agroeconomic courses compared to other courses

Based on the analysis, those time periods were highlighted that proved to be the most significant regarding the education of agroeconomic courses.

**RESULTS END DISCUSSION**

Magyar-Óvári Gazdasági Magántanintézet (1818–1849) – Private Institute of Economics of Magyar-Óvár

The language of the 2-year long program was Latin-German, the title of the qualification: farm officer. The head of the institute between 1818 and 1832 was Antal Wittmann, a land steward of the estate and founding member of the institute, between 1833 and 1849 Joachim Kekye was the principal (KALMÁR and ORBÁN, 2017). The private institute is funded by the revenue of the estates.

When Antal Wittmann became the land-steward of Prince Albert Casimir of Saxony-Duke of Teschen’s estates in 1811, he already formed the clear notion that a rational functioning of large-scale plant necessitates a highly educated leadership. He also understood that such a leadership could only be provided by organized education. Thus in 1816, only two years after his arrival to Magyaróvár, he already proposed the establishment of a higher educational institution. After a long delay, Prince Albert Casimir the educational institution, officially opening on November 10, 1818, started operating in the building of the castle. The first academic year opened with 4 teachers and 22 students. In the beginning, the curriculum was temporary and only for internal use. The first official curriculum was published by the institute on September 1, 1820. According to the programme, the students had to study: Chemistry, Physics, Mathematics, Languages, Agriculture, and supervision studies. On September 1, and only the courses and weekly number of lessons of that semester were fixed. The courses did not include any related to economics, however, “the lectures of accounting were held separately in the finance offices of the estate, where the process of accounting was introduced in practice as well” (WALLEHSAHEN, 1993).

Thear Albrecht (1752–1828) laid down the foundations of livestock equipment and – management studies in his 1809 school founding work, published in Germany. He gained several followers in the same century, both in Germany and Hungary. Császári és Királyi Gazdálkodási Felsőbb Tanintézet (1850–1869) – Imperial and Royal Economics Higher Education Institution

Similar to the previous one, the length of the program is 2 years, the language of the program is German, and the title of qualification is farm officer. The heads of the institute: 1850–1861, Dr. Vilmos Henrik Pabst, principal; 1861–1884: Dr. Antal Masch, principal (KALMÁR and ORBÁN, 2017).

At the end of 1849, after the events of the Hungarian Revolution of 1848, the Ministry of Landeskultur in Vienna ordered the establishment of a state-owned economics higher education institution. The school was to operate on March 10, 1850. According to the announcement, the winter semester was to start on November 10, 1818, started operating in the building of the castle. The first academic year opened with 4 teachers and 22 students. The title of qualification is farm officer. The heads of the institute: 1850–1861, Dr. Vilmos Henrik Pabst, principal; 1861–1884: Dr. Antal Masch, principal; 1884–1899, farm officer with university degree (1900–1926), engineer with university degree (1927–1930), farm officer with university degree (KALMÁR and ORBÁN, 2017).

First, the length of the program was 2 years (1874–1892), then 3 years (1892–1902), after which the program was changed to 4 years. In 1902, the Ministry of Agriculture, Industry, and Commerce started the transfer of ownership of the institute from the private to the state. The new institutional code stated that the institution was directly under the purview of the ministry (TEVN, 2017).

The first organizational regulation, published in 1850, only defined the curriculum of the theoretical disciplines and their weekly lesson numbers, without breaking it down into school years. An ingenuity was the system of the Monarchy. Following for the first time in Óvár: national economics studies, foundations of legal studies, agricultural law, and government organization studies, which later developed into the discipline of public administration.

After the Austro-Hungarian Compromise of 1867, the Ministry of Agriculture, Industry, and Commerce started operating on March 10, 1867, and it took control of maintaining the institution in Magyaróvár in 1869. During this period, higher education institutions in Debrecen, Keszhely, and Kolozsmonostor were operating as well, but their opening and operation did not cause any particular issues for the ministry (TEVN, 2017).

Since the 1890s, a growing number of people had been concerned with reforming the higher education program of agriculture. György Linhart, professor of the Academy, turned to the public and particularly to the ministry with concrete suggestions that mostly focused on the rearrangement of the institutional framework while also taking into consideration the reform of the program itself. Linhart assumed a great role in the creation of a curriculum that set higher requirements for academicians (LINHART, 1900).

In the first curriculum of the academy, the following economic courses appeared: local economic conditions, agrobusiness studies, accounting, national economic studies, estimation studies (Photo 1). The most important professors of this era: Pál Sporzon (1831 – 1917) (Agricultural Accounting, Economic Estimation Studies, Agricultural Business Administration), Richard Suschka (1858 – 1910) (Basic Agricultural Accounting), Árpád Hensch (1847 – 1913) (Agricultural Business Administration II; Livestock Equipment and Management Studies). Their textbooks targeted a niche in this field of education. Pál Sporzon in the introduction of his 1885 book titled “Gazdasági Becsléstani” (Economic Estimation Studies) mentions the following as the essential basis for successful business: business administration, as determined of reasonable business conditions, accounting studies, as the indicator of the degree of profitability, while estimation studies as the indicator of the return capability of income sources. He advises the careful study of these for all farmers. ÁRPÁD HENSCH emphasizes in his 1906 book Agricultural Business Administration II: “virtually, the task of livestock equipment and management studies is to determine those business ratios and economic guiding principles in the equipment and management of farms that one should follow to ensure the constant highest revenue in the organization and leading of production. Additionally, the central idea of these principles is to achieve the most favorable ratio of production income and production costs.” (Photo 2)
After 8 decades of a 2-year program, a 3-year-long one replaced it from 1902. Business courses are taught in the third year, out of the 22 lessons of the year, 13 are business lessons: out of the 9 subjects, 5 are of this area of study. Károly Világhy (1883-1975) was the head of the third year, out of nine subjects, 5 are of this area of study. The length of the program was 5 years, the title of qualifications: agricultural engineer with university degree, food quality management-agricultural engineer with university degree. The Department of Agricultural Business Administration offered courses of economics and leadership- and management studies. After the regime change, the new path for agricultural engineers was opened; Business courses also receive a separate department (Department of Business Administration). The Department of Agro-Economics and Rural Development undergraduate program began with a great number of students; later, the number of applicants gradually and dynamically declined (2005/06: 40 admitted students, 2015/16: 10 admitted students). However, this was a nationwide trend, not only an issue of this faculty. The Rural Development graduate program operates with 3-5 students. As the number of the instructors of the field declined, the Department of Economics and other departments hosting social science courses were gradually merged together, and from 2011 onwards, these departments operated within one institute (Institute of Business Studies). The length of the undergraduate program is 3 years, while the graduate program’s is 2 years (later also offered as a higher-level vocational training, 2 years). The title of qualification for the undergraduate program is agricultural engineer, and for the graduate program, it is agricultural engineer with university degree. The Department of Agricultural Business Administration courses were gradually merged together, and the establishment of a new operating structure and the complete reorganization of the agricultural sector. Consequently, agricultural business administration and related studies turned new operating structures, the problems of scaling, and arranging the creation of farms (individual, cooperative, company) (NÁBRÁDI et al.: ed., 2008).

The importance of this period is the fact that the “business” aspect of the education of agricultural engineers evolved into a separate program. Business agricultural engineering program has been offered at the faculty since the 1995/96 school year. Almost 40% of the institute's students are enrolled in this major, which shows the significance of the program. Starting from 2000, the program had a graduating class every year until the program was discontinued.


The length of the program: 5 years, the title of qualification: agricultural engineer with university degree. The Department of Business Administration (Department of Civil and Commercial Law) (WALLESHAUSEN, 1993).

The refurbishment of the educational structure was focused on new foundations; on the establishment of a new operating structure and the complete reorganization of the agricultural sector. Consequently, agricultural business administration and related studies turned new operating structures, the problems of scaling, and arranging the creation of farms (individual, cooperative, company) (NÁBRÁDI et al.: ed., 2008).

The important aspects of the period were the problems of the business analyses of plant cultivation (Photo 3). He prepared several lecture notes for students, one of which was concerning dairy production business administration (1930), and it discussed the physiological and economical significance of milk. The first golden era of agro-economics education is
the Hungarian Royal Academy of Economics (1847-1942). Starting in the 1900s, the courses became more specialized, their numbers increased, the field broadened, the number of departments grew.

The second golden era of economic education was the first decade of the 2000s, when the institution was producing business agricultural engineers with university degree in the 5-year undivided program. They were the most demanded agricultural engineers of the labor market, who possessed a well-balanced knowledge of agriculture and business, as well as outstanding leadership skills.

The introduction of divided programs does not support the successes of agricultural engineering education. The fast implementation, the carelessly constructed curricula, and the labor market’s rejection of the rural management’s expertise led to the quick decline of the programs. We can only hope that the future steps of the reconstruction of the agricultural higher education will facilitate the renewal and stabilization of agricultural engineering programs that also provide business education.

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