

1 **Measuring managerial efficiency of table egg producers in**

2 **Akwa Ibom State, Nigeria**

3 **Abstract**

4 This study measured the managerial efficiency of table egg producers in Akwa Ibom
5 State. The specific objectives were to ; determine the levels of managerial efficiency of table-
6 egg producers in the study area; analyse the factors that affect the managerial efficiency of
7 table egg producers in the study area and examine table egg producers' perceptions on the
8 severity of challenges of the business environment in table egg production in the State.
9 Structured questionnaires were used to gather information from 210 table egg producers
10 selected through simple random sampling technique. Data Envelopment Analysis (DEA) was
11 used to analyse table egg producers' managerial efficiency while the factors affecting
12 managerial efficiency were examined using Tobit regression model. Findings from the study
13 showed that table egg producers were managerially inefficient with a mean managerial
14 efficiency level of 12.6 % and standard deviation of 16.1. Years of experience, marital status,
15 sex and income were significant factors that affected the managerial efficiency of table egg
16 producers in the study area. non- availability of credit facilities, irregular extension contacts,
17 epileptic public power supply high cost of feeds and high cost of labour were ranked as very
18 severe challenges of the business environment in table egg production. The study emphasises
19 the need for government to collaborate with relevant stakeholders in the private sector to fund
20 and organise capacity building programmes for table egg producers. Also, Table egg
21 producers in the State should be encouraged to collaborate with their counterparts to form
22 partnerships. This would definitely improve their decision-making process or managerial
23 capacities and consequently their managerial efficiency levels.

24
25 **Keywords: managerial efficiency, table egg, business environment**

26 **1.0 Introduction**

27 Nigeria has the highest number of poultry farms as well as the highest participation of people
28 in the poultry industry in Africa, but in spite of this, various research outcomes have shown
29 that most of these farmers run their farms at very unsustainable profit margins due to lack of
30 technical experience, poor production methods as well as poor management which have
31 caused most farmers to quit the industry Food and Agricultural Organization (FAO, 2010).
32 Consequently, Nigerian agriculture has not been able to feed the ever-increasing population
33 with adequate calorie and protein (Afolabi, 2012) and (Afolami, Adebayo, Afolabi and
34 Odotola, 2011).

35 To augment the shortfall in local supply, the Federal Government of Nigeria (FGN)
36 tried to offset the huge deficit in animal protein consumption by embarking on massive
37 importation of chilled beef and chickens which caused an increase in import bills for food
38 and live animals from NGN 178.745.4b in 2004 to NGN 351.507.68b in 2009 [Central Bank
39 of Nigeria (CBN), 2009]. For many reasons, this policy was counter-productive; hence, the
40 ban on importation of frozen poultry products in 2003. The ban of poultry products by the
41 Federal Government of Nigeria caused a turn-around in poultry farming which grew by 10.3
42 percent in 2011 as compared with 0.3 percent in 2003. Apart from the ban, this growth was

43 also due to improvement in the provision of veterinary and extension services to poultry
44 farmers (Ibrahim, Shettima, Sulumbe and Abdullahi, 2009). Consequently, Nigerian hen-egg
45 production expanded rapidly from 185,300 metric tons in 2001 to 268,000 metric tons in
46 2011 representing 30.9 percent and was valued at \$527.49 million, ranking 19th in world
47 hen-egg production and the top producer in Africa.

48 However, this still falls short of the country's aim of self-sufficiency in animal protein
49 consumption which is put at 5gm/caput per day, a far cry from the Food and Agriculture
50 Organization's recommended level of 35gm/caput per day (Ojo, 2005). This has been
51 attributed largely to the high cost of feeds which constitutes about 50 per cent of total
52 production cost (Ojo and Ajibefun, 2000; Udom, 2003). Okike (2009) observed that the
53 potential for egg consumption was enormous in the country but most people eat less than 40
54 eggs in a year. On the other side, Ebong (2007) and Uchendu (2008) identified the problem of
55 low or inadequate skills, knowledge, and non-scientific approaches to agricultural production
56 as major impediments to agricultural productivity in Nigeria. They attributed the persistent
57 low productivity to inefficient use of resources and poor managerial skills. It is reported that
58 farmers in developing countries fail to explore the full potential of technology and make
59 allocative errors (Taylor and Shonkwiler, 1986; Ali and Flinn, 1989, Kalirajan and Shand,
60 1989; Bravo-Ureta and Evenson, 2007; Shanmugan and Palanisami, 1994; Sharma and Datta,
61 1997; Thomas and Sudaresan, 2000)

62 According to the Resources Inventory and Management Limited (RIM, 1992), the
63 livestock industry is dominated by poor-resource farmers who have a very low level of
64 education, poor capital base and inability to manage resources efficiently. He further stated
65 that production targets can only be achieved if farmers are properly educated to enable them
66 to manage farm inputs, adopt and properly apply innovations from research institutes.
67 Afolabi, (2012), Iyangbe & Orewa, (2009) and Adepoju (2008) also attributed the problem of
68 underperformance in the livestock sector and particularly in poultry to inefficiency in
69 resource use.

70 Several studies have been conducted on efficiency in the poultry industry. Most of
71 these studies which include; Ashagidigbi *et al.* (2011), Binuomote *et al.* (2008), Adepoju
72 (2008), Yusuf and Malomo (2007), Ojo *et al.* (2012), (Etim, Udoh and Awoyemi, 2005);
73 (Ohajianya, Onu, Ugwu, Osuji, Nwaiwu, Orebiyi, Godson-Ibeji and Enyia 2013a);
74 Ohajianya, Mgbada, Onu, Enyia, Henri-Ukoha, Ben-chendo and Godson-Ibeji, 2013b) and
75 Udo *et al.* (2010) are on efficiency in resource use and focus only on the technical or
76 allocative or economic efficiencies. However, researchers and scholars in the field of farm
77 management agree that the farmer is one of the most important elements affecting farm
78 performance (Pari and Asadollah, 2013; Baksh & Hassan, 2007; Nuthall, 2006). The
79 importance of competent management is also emphasized when the farmer's managerial
80 capacity is seen as the fourth production factor or when the managerial input is seen as a
81 major resource with nature, labour and capital (Rougoor, Trip, Huirne and Renkema, 1998;
82 Nuthall, 2006). Managerial skills are believed to determine the important portion of a farm's
83 economic returns because of its overall influence in the planning, organizing, directing,
84 coordinating and controlling of all activities relating to table egg production namely: input
85 suppliers, production, processing/storage and marketing or distribution (Byers and Rampa,
86 2013). Also, Punjabi, (2007) asserts business environment is a significant factor in
87 determining the performance of the business. This study is therefore conceptualised to fill
88 this research gap. The broad objective of this study was to measure the managerial efficiency
89 of table-egg producers in Akwa Ibom State.

90 The specific objectives of the study were to:

- 91 (i) determine the levels of managerial efficiency of table-egg producers in the study area

- 92 (ii) analyse the factors that affect managerial efficiency of table egg entrepreneurs in the
93 study area.
94 (iii) examine Table egg producers' perceptions of the severity of challenges of the
95 business environment in table egg production in the state.
96

97 **Research of Hypotheses**

98 The hypotheses stated below in its null form were tested in this study:

99 Ho₁ Table egg producers in Akwa Ibom State are not managerially efficient

100 Ho₂: Some socioeconomic variables have no significant effect on managerial efficiency of
101 table egg producers in the State.
102

103 **2.0 Literature review**

104 **2.1 Managerial efficiency**

105 Managerial efficiency within the context of this study is defined as the capacity of
106 table egg entrepreneurs to harness and efficiently utilize scarce resources in the production of
107 table egg (Baksh and Hassan, 2007). Farmers play managerial functions in organising
108 efficiently the transformation of inputs into productive outputs. The difference between the
109 productivity of two managers in the same place and facing similar environmental condition
110 lies in their managerial efficiencies. The managerial efficiency of an entrepreneur can be
111 influenced by socioeconomic factors such as level of education (formal and informal),
112 experience, access to extension services and personal ability and traits (Kalaitzandonakes and
113 Dunn, 1995).

114 Historically, commentators argued that managerial skill is determined by genetic traits
115 of a manager's personality, a predominantly intrinsic orientation too difficult to alter
116 (Johnson, Halter, Jensen, Thomas 1961). Psychologists later detected that gene determines
117 only a little of (33 to 34%) personality traits. Rather, social settings and trainings reshape
118 personality (Borkenau, Riemann, Angleitner and Spinath 2001, Matthews, Deary and
119 Whiteman, 2003). Being aware of this, agricultural economists have argued that necessary
120 trainings should be provided to less-skilled farm managers to help enhance managerial skills
121 (Nuthall, 2001). For example, he stated that "individual (social) behaviour and learning are
122 related to managerial ability". Thus, it is critical to appreciate farm managers' psychological
123 aspects and develop necessary programs to aid learning. Behavior reflects attitudes and
124 objectives. And on the farm, managerial behaviour can be assumed to reflect entrepreneurial
125 goals (Bergevoet, Ondersteijn, Saatkamp, Woerkum and Huirne, 2004).

126 Resources involved in the production process are limited in supply and therefore
127 demands that these scarce resources should be efficiently utilised. Efficient utilisation of
128 resources depends basically on the managerial ability of farm managers (Baksh and Hassan,
129 2007). The difference between the productivity of two managers in the same place and facing
130 similar environmental condition lies in their managerial abilities.

131 The managerial ability of an entrepreneur can be influenced by level of education
132 (formal and informal), experience, access to extension services and personal ability and traits
133 (Kabitzandonakes and Dunn, 1995). Ford and Shonkwiler (1994) stated that managerial
134 ability is defined through a set of demographic variables or proxies of production methods.
135 Since management is difficult to measure, it has often been handled as a black box
136 represented by limiting factors such as age, education, and drivers or motivations of the
137 farmers (Hanson 2008).

138 Typically, managers are responsible for organising efficiently the transformation of
139 inputs into productive outputs. Part of this process requires the manager to monitor and

140 evaluate the inputs as well as motivate (in the case of labour). The manager's performance
141 may be crucial for the success of the business if the manager performs well (and output is
142 maximized for a given set of inputs), profit maximization will result (Dawson and Dobson,
143 2002).

144

145 **2.2 Empirical studies on managerial efficiency**

146 Nwachukwu *et al.* (2011) assessed the managerial efficiency among agribusiness
147 firms in Abia state, Nigeria with specific interest in analyzing their socioeconomic
148 characteristics, managerial efficiency levels and its determinants. Purposive sampling
149 technique was used in the selection of locations and firms. Aba and Umuahia were selected
150 where most of the commercial firms are located. The study employed 50 firms on the basis of
151 their investment value (less than ₦5m). Descriptive statistics and stochastic frontier model
152 were the analytical tools for the study. The result showed that the majority of the firms were
153 well established and managed by middle aged, sparingly literate and experienced managers
154 with an appreciable income level and sizable household. The efficiency level of the managers
155 was 0.62 on the average and managerial efficiency was found to be influenced positively by
156 age of the firm, age of managers, income, and education of the managers. Efficiency was
157 negatively affected by the household size of the managers. On the basis of the findings, the
158 study suggested that periodic training and capacity building programs be organized for the
159 managers to enhance their expertise and managerial competence.

160 Makinen (2013) studied how farmers' managerial thinking and management process
161 effectiveness contribute to profitability of farming. A structured equation model of these two
162 elements of management capacity and financial performance was applied on survey data and
163 book-keeping results from 117 dairy farms. The model explained one-fourth of the varying
164 profitability of sample farms. The result showed that farmers' managerial thinking is
165 connected to farm profitability, but management process effectiveness is not. It was
166 concluded that it is essential for good performance that the farmer should have a clear vision
167 of developing farming with business and investment plans. Successful farmers also have a
168 firm confidence on their managerial skills, a strong emphasis on instrumental and intrinsic
169 values, and a high appreciation of farming as an occupation. They also see the farm as an
170 entrepreneurial business unit and intend to follow the corresponding principles of
171 management.

172

173 **3.0 RESEARCH METHODOLOGY**

174 **3.1 Study area**

175 The study area for this research is Akwa Ibom State. The State was created as a
176 geographical entity among the 36 states of the Federal Republic of Nigeria on September 23,
177 1987 under Decree No. 24 of the Federal Republic of Nigeria. It was carved out of the
178 former Cross River State and lies between Latitude 4° 32' and 5° 32' North and Longitude 7°
179 25' and 8° 25' east of the equator. The state shares borders with River State in the West, Abia
180 and Imo State in the North, Cross River State in the East and Atlantic Ocean forming its
181 southern boundary. The State occupies an area of 8,412 square kilometers with a population
182 of 3.9million based on the national census figure of year 2006 and an average population
183 density of 350 inhabitants per square kilometer with 85 percent of the population living in
184 rural areas.(NBS, 2008). The State has thirty-one Local Government areas with Uyo as the
185 capital. Akwa Ibom State has three distinguishable vegetation; the saline water swamp forest,
186 the fresh water swamp forest and the rainforest. It has a mean annual rainfall of 2,200mm in
187 the north of the state and 3,500mm in the southern part with sunshine of between 1,400 to

188 1,500 hours per year. The rich land mass and all year-round clement weather offer a
 189 favourable environment for wildlife conservation, the production of food and tree crops, fish
 190 and livestock farming. The State is known for the cultivation of cassava, yam, cocoyam,
 191 maize, rice, cowpea, oil palm, coconut, raffia palm, kola and vegetable like okro, pepper and
 192 tomatoes. It also produces livestock such as sheep, goats, rabbits, snails and has a
 193 comparative advantage in poultry production.

194

195 3.2 Sampling procedure and data collection

196 There are six agricultural zones in Akwa Ibom State Oron, Abak, Ikot Ekpene, Etinan,
 197 Eket and Uyo. For the purpose of this research, a sampling frame showing total population of
 198 1,051 table egg firms in the 6 agricultural zones in Akwa Ibom State was obtained from the
 199 Livestock Department of Ministry of Agriculture, & Natural resources, Akwa Ibom State
 200 (Table 1). Simple random sampling technique was adopted in the selection of 20% table egg
 201 firms from each agricultural zone to constitute a sample of 210 table egg firms. Structured
 202 questionnaire was used to obtain information from the selected firm
 203 owners/managers/producers. Information collected was on the socio-economic
 204 characteristics, access to credit, access to extension services by table egg producers,
 205 membership in cooperatives, factors that affect managerial efficiency of table egg producers,
 206 costs of table egg production and revenue from production. Out of the 210 questionnaires
 207 distributed, 180 were retrieved and used for analysis.

208

TABLE 1.

209 Sampling frame and sample size of Table egg producers in Akwa Ibom State by Agricultural
 210 Zones

S/N	Agricultural Zones/LGAs	Population of Egg Firms (Sampling Frame)*	Number of Egg firms selected for the study (20%)	No of Questionnaires Retrieved	Retrieval Rate (%)
1	Eket	150	30	30	100.0
2	Uyo	301	60	48	80.0
3	Ikot Ekpene	288	58	44	75.9
4	Abak	102	20	20	100.0
5	Etinan	130	26	26	100.0
6	Oron	80	16	12	75.0
	Total	1051	210	180	85.7

211 * Livestock Department, Ministry of Agriculture & Natural Resources, Akwa Ibom State

212

213 3.3 Data analysis

214 Two Data Envelopment Analysis (DEA) models developed by Charnes *et al.* (1978)
 215 namely: the Charnes, Cooper and Rhodes (CCR) model which consider constant returns to
 216 scale (CRS) and the Banker, Charnes and Cooper (BCC) model which considers variable
 217 return to scale (VRS) were used to calculate the managerial efficiency of table-egg producers
 218 in the area of study. Tobit regression model was used to analyse the factors that affect the
 219 managerial efficiency of table egg producers. The perception of table egg producers on the

220 severity of challenges facing the business environment was captured using a four point likert
 221 scale (Very severe, moderately severe, severe and not severe) and analysed using descriptive
 222 statistics.

223

224 3.3.1 Determination of managerial efficiency

225 The CCR model is given as;

$$226 \max W_P = \sum_{r=1}^s u_r y_{rp}$$

$$227 \text{ s.t: } \sum_{i=1}^m v_i x_{ip} = 1$$

228

Model 1

$$229 \sum_{r=1}^s u_r y_{rj} - \sum_{i=1}^m v_i x_{ij} \leq 0 \quad \forall j,$$

$$230 u_r, v_i \geq 0 \quad \forall i, r.$$

230

231

232 Likewise, the BCC model is formulated as follows (Model 2):

233

$$234 \max W_P = \sum_{r=1}^s u_r y_{rp}$$

235 s.t :

Model 2

$$236 \sum_{r=1}^s u_r y_{rj} - \sum_{i=1}^m v_i x_{ij} \leq 0 \quad \forall j,$$

$$237 u_r, v_i \geq 0 \quad \forall i, r.$$

237

238

239 Model 1 (input oriented CCR model) allowed table-egg farms [otherwise referred to
 240 as Decision Making Units (DMUs) in DEA terminology] that had low inputs to come up with
 241 increasing returns to scale whereas model 2 (BCC model- output oriented model) allowed
 242 DMUs that had high inputs would come up with decreasing returns to scale.

242

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245

n= Number of table egg farms otherwise called decision-making units (DMUs)

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m= Socioeconomic factors that can influence managerial efficiency of table egg
 producers namely: age of the manager (yrs), access to extension services, (dummy, yes
 =1; No = 0); years of experience (yrs); access to credit (dummy, yes =1; No = 0);
 household size (No); educational qualification of table egg producers (years of
 schooling), estimated per production cycle (N), etc to produce table egg

s= Quantity of outputs (table-egg) produced by each DMU

Specifically, DMU_j consumes amounts x_{ij} ($i = 1, \dots, m$) from inputs to produce
 amounts y_{rj} ($r = 1, \dots, s$) of outputs (table-eggs).

In the model formulation, x_{ip} ($i = 1, \dots, m$) and y_{rp} ($r = 1, \dots, s$) denote the nonnegative
 crisp vectors of input and output values for DMU p and v and u symbolize input and output

256 weights, respectively. In solving an optimization problem, each DMU_j sets its own weights to
 257 maximize its efficiency subject to the condition that all efficiencies of other DMUs remain
 258 less than or equal to (1) and the values of the weights are greater than or equal to (0) (Komleh
 259 *et al.*, 2011) The above mentioned linear programming (LP) problem would result in the managerial
 260 efficiency score of DMUs (table-egg producers). For the best situations, an efficiency value of (1)
 261 indicates an efficient unit (Dagistan *et al.*, 2009).

262

263 3.3.2 Factors affecting managerial efficiency of table egg entrepreneurs

264 Managerial efficiency of table egg producers depends on both social and economic
 265 factors. Tobit regression model was used to investigate the effect of these factors. The
 266 efficiency or inefficiency scores were regressed against farm specific variables. Managerial
 267 efficiency scores that were below 0.5 were adjudged inefficient and thus given the value zero.
 268 The socio-economic characteristic of the respondents that could affect managerial efficiency
 269 levels were considered as stated in the model below:

270

$$271 \text{MEff} = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \beta_9 X_{9i} + \mu_i$$

272 Where,

273 MEff = managerial efficiency score for each production unit or respondent

274 Where:

275 X_{1i} = Age of the farm manager (years)

276 X_{2i} = Sex of the manager (Dummy: Male =1; Female 0)

277 X_{3i} = Marital Status of the ith farm manager/producer

278 X_{4i} = the education level of the ith farm manager/producer (years of schooling)

279 X_{5i} = Years of Experience (years)

280 X_{6i} = Membership of a Cooperative Society (No=0, Yes=1)

281 X_{7i} = Number of Extension contacts

282 X_{8i} = Credit use by the ith farm unit (No=0, Yes=1)

283 X_{9i} = Income of the ith farm in number.

284 μ_i = the error term.

285

286

287 4.0 RESULTS AND DISCUSSION

288 4.1 Managerial efficiency of table egg producers

289 Findings of the study show that 89.4% of the respondents had managerial efficiency
 290 score of less than 26% while 2.2% of respondents accounted for managerial efficiency score
 291 of 76 – 100. The minimum managerial efficiency of table egg firms was 2% while the
 292 maximum was 100%. The average managerial efficiency score was 12.6%, with standard
 293 deviation of 16.1%. This result validates the null hypothesis (H_{01}) that table egg producers in
 294 the study area were not managerially efficient (Table 2).

295

296

TABLE 2

Managerial Efficiency levels of table egg producers

Managerial efficiency scores	Frequency	Percentage
0 - 0.25	161	89.4
0.26 - 0.5	12	6.7

0.51 - 0.75	3	1.7
0.76 - 1.0	4	2.2
Total	180	100
Mean	12.6 (16.1)	

297 Source: Field Survey (2016) Note: Figures in parentheses are std. deviations
 298

299 **4.2 Factors affecting managerial efficiency of table egg producers**

300 The results of the factors affecting the managerial efficiency of entrepreneurs in the
 301 study area show that managerial efficiency of table egg producers depended on
 302 socioeconomic factors such as marital status, sex of the farmer, years of experience and
 303 income. The coefficient of years of experience was positive and significant at the 5 percent
 304 level. It implies that years of experience of a table egg farmer, significantly explained
 305 variations in managerial efficiency. From the results, farmers with less than 11 years of
 306 experience are less efficient compared to managers with more than 30 years of experience.
 307 More so, farmers with less than 10 years of experience were 0.147 times less efficient
 308 compared to managers with more than 30 years of experiences. For managers with (11- 20)
 309 years of experience and (21- 30) years of experience, managerial efficiency was lower by
 310 0.128 and 0.396 compared to managers who had years of experience above 30 years Table 3).
 311 This result is consistent with our apriori expectation and agrees with the findings of previous
 312 studies by Ojo and Ajibefun (2000).

313 Ekaette et al. (2018) also described the business environment of egg producing enterprises as
 314 hostile due to: high cost of feed, poor management, diseases and pests, poor extension and
 315 training facilities, marketing problems, lack of credit facilities, poor logistics and lack of
 316 regulatory institutions to ensure that farmers comply with established rules for quality, p
 317 roducts safety and standard.

318
 319 Considering the marital status of respondents, the result showed that table egg
 320 producers who were married as well as the singles were more efficient than the widowed.
 321 The positive relationship between marital status and managerial efficiency is in line with the
 322 work of Ashagidigbi *et al.* (2011). Managerial efficiency increases by 0.387 when a farm
 323 manager is married compared to when he/she was widowed, while, managerial efficiency
 324 increases by 0.592 if a manager is single compared to when he/she is married.

325 The result further shows that sex is a significant factor that affects managerial
 326 efficiency. As shown in the table 2, female managers were less productive compare to their
 327 male counterparts. This is plausible given their level of commitment in the business.
 328 Managerial efficiency fell by 0.118 if the manager is a female compared with farms managed
 329 by males (Table 3). This is in line with the findings of Ashagidigbi *et al.* (2011).

330 Also, the result shows that income was positively related to managerial efficiency.
 331 This implies that income was a significant determinant of managerial efficiency as reported
 332 by Amaza, (2000) and Ashagidigbi *et al.* (2011). The result shows that Managers with high
 333 income will be 0.09 times more efficient compared with managers with average income.
 334 More so, managers with high income will be 0.058 times more efficient than managers with
 335 low income (Table 3). This is convincing as income will serve as a motivation to achieve
 336 higher performance and efficiency.

337

338

TABLE 3

339 Tobit regression showing the determinants of managerial efficiency of table-egg producers in
340 Akwa Ibom State

Variable	Coefficient	Std. Err.	T	P> t
Years of experience: below 10	-0.147*	0.08	-1.84	0.067
Years of experience: 11 to 20	-0.128*	0.066	-1.94	0.054
Years of experience: 21 to 30	-0.396***	0.113	-3.49	0.001
Marital status: Married	0.387***	0.065	5.96	0.000
Marital status: single	0.592***	0.145	4.07	0.000
Sex: Female	-0.118**	0.056	-2.09	0.038
Income: High	-0.582	0.327	-1.78	0.076
Income: Average	-0.09**	0.039	-2.3	0.022
Income: Low	-0.058*	0.033	-1.78	0.076
Access to credit	-0.029	0.068	-0.42	0.675
Years of schooling	-0.047	0.068	-0.68	0.495
Age: 21 to 30	0.201	0.131	1.54	0.126
Age: 31 to 40	0.054	0.13	0.42	0.678
Age: 41 to 50	0.043	0.057	0.75	0.452
Frequency of extension contacts	-0.1	0.061	-1.64	0.103
Constant	-0.282	0.172	-1.64	0.103
Number of obs	180			
F stat (P-Value)	7.66			
Log likelihood	-65.145656			
Sigma	0.2757183***			

341 Source: Author's computation (2016)

342 Note: *, ** and *** represents statistical significance at 10%, 5% and 1%

343

344 **4.3 Table egg producers' perceptions on the severity of challenges of business**
345 **environment in table egg production in the state.**

346

347 From table 4, factors which were considered as having the most severe effects on the
348 firms were: non- availability of credit facilities with 95.5%, irregular Extension contacts
349 (88.3%), epileptic public power supply (87.9%) and high cost of feeds (86.0%) while high
350 cost of labour accounted for a share of 82.4%.

351

TABLE 4

352 Perceptions by respondents on severity of the challenges facing business environment of table
353 egg producers in Akwa Ibom State

Nos.	Factors affecting the business environment of table egg producers	VS (4) Freq	%	S (3) Freq	%	FS (2) freq	%	NS (1) freq	%	Total
1	Non availability of Credit facilities	168	95.5	8	4.5	-	-	3	1.7	176
2	Irregular extension contacts	151	88.3	10	5.8	6	3.5	4	2.3	171
3	Availability of modern equipment	90	78.3	15	13.0	5	4.3	5	4.3	115
4	Cost of modern equipment	140	82.4	15	8.8	10	5.8	5	2.9	170
5	Multiple taxation	10	5.7	34	19.5	20	11.5	110	63.2	174
6	Poor Water supply	97	58.4	34	20.5	25	15.1	10	6.0	166
7	High Cost of labour	153	86.0	15	8.4	5	2.8	5	2.8	178
8	Epileptic Public power supply	152	87.9	10	5.8	8	4.6	3	1.7	173
9	High Cost of feeds	109	77.3	25	17.7	12	8.5	5	3.5	141
10	Diseases and Pest	141	79.7	20	11.3	10	5.6	6	3.4	177
11	High cost of transportation	3	1.8	7	4.1	40	23.4	121	70.8	171
12	Poor returns on investment	1	0.6	2	1.1	2	1.1	169	97.1	174
13	Poor quality of feeds	157	94.0	5	3.0	3	1.8	2	1.2	167

354 **VS = Very Severe; (4) S = Severe; (3); FS = Fairly Severe (2); and NS = Not Severe. (1)**

355

356

357 **5.0 Policy implications**

358 Table egg producers in Akwa Ibom State were managerially inefficient. This is
359 evident in the result of this study which shows that 89% of the table egg firms in the study
360 area had managerial efficiency scores of less than 26% and the mean managerial efficiency
361 score of 12.6% and standard deviation of 16.1. The coefficients of years of experience,
362 marital status, sex, income were positive and significant determinants of managerial
363 efficiency while years of education was negative although all respondents had formal
364 education and the mean years of schooling was 10.7 with standard deviation of 4.87. This
365 implies that the possession of formal education by table egg producer without adequate skill
366 about the business does not guarantee that the producer will perform the managerial functions
367 of the firm efficiently. Similarly, acquisition of more of years of experience in the business
368 without any value addition on the capacity of the operators coupled with poor extension
369 services cannot guarantee efficiency. In the same vein, being a member of a cooperative
370 society which do not build the skills of members on best management practices in the
371 business does not guarantee efficiency. Also, access to credit by table egg producers without
372 utilizing the funds in the business will definitely have a negative effect on efficiency.
373 Findings from this study emphasis the need for government to partner with other non-
374 government stakeholders through Public Private Partnership (PPP) in order to address the
375 challenges and create a conducive or enabling business environment that would raise the
376 reported low managerial efficiency levels of table egg producers in the State.

377 There is need for government to collaborate with relevant stakeholders in the private
378 sector to fund and organize capacity building programmes for table egg producers. Such
379 programmes should also be extended to other players in the value chain in order to strengthen
380 the marketing chains thereby facilitating inter and intra-industrial linkages. Also, Table egg
381 producers in the State should be encouraged to collaborate with their counterparts to form
382 partnerships. This would definitely improve their decision making process or managerial
383 capacities and consequently their managerial efficiency levels.

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