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PERCEIVED ENTREPRENEURIAL COMPETENCY NEEDS OF RICE PROCESSORS IN EDU LOCAL GOVERNMENT AREA, KWARA STATE, NIGERIA

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Abstract

Globally, interest in entrepreneurship is on the increase because it is perceived as a tool that establishes employment, alleviates poverty, invent wealth, goods, and services. Similarly, rice processing is acknowledged as an activity that creates employment opportunities for rural populace. This study therefore assessed the entrepreneurial competency needs as perceived by rice processors in Kwara State. Data was generated from 160 respondents through three-stage sampling technique with the aid of interview schedule. The result shows that 53.8% of the respondents were female with mean age of 49 years, household size of 7 persons, and processing experience of 16 years, respectively. Majority (91.9%) of the respondents source their information from farmers group and the area where competency is needed are planning, prioritizing and organising rice processing tasks ($\bar{x}$=1.72), record keeping ($\bar{x}$=1.73) and mist polishing ($\bar{x}$=1.75). This study therefore recommends that the rice processors should be trained adequately on planning, prioritizing and organising of processing task as well as record keeping in rice processing and provision of required technologies for processing.

Keywords: employment opportunity, rice processing skills, wealth creation.

Introduction

Entrepreneurship is the ability and willingness of an individual to seek out investment opportunities, establish and run an enterprise successfully (Salau *et al.,* 2017). Worldwide, entrepreneurship is regarded as a feasible and permanent solution to the soaring rate of unemployment and poor economic growth. It is also seen as an employment strategy that leads to self-sufficiency through the creation and management of an enterprise. The importance of entrepreneurship for growing the economy of rural communities, most especially cannot be over emphasized, this is because entrepreneurship supports wealth creation, growth and sustainability (Ojo and Oluwatayo, 2015).

Competency is defined as an entrepreneur's ability to direct, lead, delegate, motivate, plan, schedule work, design programs, and arrange the firm's finances (Kaur and Bains, 2013). Umeze and Ohen (2015) characterized competency as being linked to managerial capability and involving the administration of the organization's internal and external affairs, such as proper financial management, promotion of the firm's goods and services, human resource management, and logistics. Given its expanding relevance and prominent role among other staples, it is unsurprising that rice has emerged as a key staple food crop in Nigeria. In all the six geopolitical zones, 36 States, all Local Governments, and across all socio-demographic groups, Nigeria has a long history of indigenous rice production and significant demand. The increased domestic demand for rice in Nigeria has been ascribed to a variety of factors, including the country's growing urban population and consumer preferences (Gyimah-Brempong *et al.*, 2016; Osabuohien *et al*., 2018)

Around 1.5 billion people work in smallholder agriculture around the world, the majority of who reside in rural areas. About 75 percent of the world's poorest people belong to this group, who rely on agriculture for food, income, and survival. Despite their critical role as food producers, millions of poor smallholder farmers face a challenging commercial future. Better market engagement is increasingly considered as a critical component in improving rural populations' life prospects. Poverty is a distinct phenomenon in this society, thus various worldwide agencies have restarted their investments in smallholder agriculture, but with a heavier focus on improving agricultural economic options for farmers. To stay relevant and meet the requirements of the rural community, farmers must develop skills that assist them in rice processing and be able to take up farming as an enterprise with the help of agricultural extension professionals (GFRAS, 2016).Annual rice consumption per capita was 29kg, while overall consumption remained at 4.4 million tons of milled rice, resulting in an annual rise of 11% attributable to income growth. Nigeria produces just about 2.8 million metric tons, leaving a 1.6 million metric tons shortage, ignoring the vast

amount trafficked across its porous borders (USAID, 2010). Because rice milling is controlled by small-scale operators, which are essentially cottage industries that supply 70% of the country's domestic rice, rice quality and standards are still missing in Nigeria (Johnson and Masias, 2016). According to Fiamohe *et al*. (2014), rice processors are a major stakeholder in improving the quality of home-grown rice, and their role as a vital ingredient in the growth of the home-grown rice market cannot be understated. The use of traditional huller mills impedes rice processing, resulting in severe post–harvest loss (Singha, 2012). The type of milling equipment utilized has an impact on rice quality. Despite the fact that large-scale rice milling equipment provides the highest quality rice, it is difficult to run in areas where production is insufficient, making the equipment uneconomical. Majority of the rice produced in West Africa, particularly Nigeria, is milled in small cottage factories, sometimes portable milling machines, which produce low-quality rice with high levels of contaminants and a mix of whole and broken grains (Demont *et al,* 2017). Lack of stock homogeneity due to a highly disaggregated and fragmented supply chain resulting from assembling rice stocks from various producers; batch processing of many varieties; as a result, the final milled rice is frequently discoloured with stones, sand, and other contaminants, as well as grain damage (Johnson and Masias, 2016). The traditional method of parboiling rice results in overcooked paddy, which reduces head rice recovery and has an objectionable odour. The rice's quality and consumer acceptance suffer as a result of this (Danbaba *et al.*, 2019).

Some of the differences between domestically processed and imported rice include appearance, swelling capacity, taste, and consistency. The taste, availability, low ingredient use, and swelling capacity of the home-produced rice brand appeal to consumers. The key pricing variables between native and imported rice are these discrepancies. As a result, improving the quality of local rice through superior bagging and branding, as well as its organoleptic characteristics, will enable it to compete with imported rice (Cadoni and Angelucci, 2013; Johnson *et al*., 2013). Furthermore, to take advantage of the best market conditions, the value chain must be capable of processing and destoning rice to ensure that it meets customer expectations for quality.

Consumers do not recognize the value of unbranded and badly packaged home farmed rice because it can be distinguished from imported rice brands. It adds value to processed home-grown rice when it is branded and packaged. The more farmers are competent in rice processing, the more they become better entrepreneurs, with more ability to manage and expand their business (Mulyana *et al.*, 2020). A talent gap in the agriculture sector, as well as farmers' incapacity to develop entrepreneurial abilities, was noted as a serious concern by McElwee (2008). It was further stressed that farmers need to develop with support from other agencies management skills, particularly marketing, financial and business planning skills. However, there is a dearth of information on the entrepreneurial competencies of rice processors in Kwara State. This study therefore described the demographic characteristics of rice processors, sources of information on rice processing, the gap in competencies of rice processors and constraints hindering entrepreneurial activities in rice processing in the study area.

Methodology

The research was carried out in Edu local government area in Kwara State, a Nupe speaking community in Nigeria with its headquarters in the town of Lafiagi. It has land area of 2,542 km² and a population of 201,469 based on the 2006 national census. The local government presently has three districts which constitute the emirates in the local government area. These includes; Lafiagi, Tsaragi, and Tsonga districts or emirates. List of registered rice processors (Association of rice processors in the Study area) was retrieved from Agricultural Development Programme (ADP) office in Kwara state. Proportionate random sampling of 30% from the list was employed to arrive at a sample size of 160 respondents for the study. Descriptive statistics such as frequency, percentage and mean were employed to analyse the demographic characteristics of the rice processors. The competency level of the respondents and their managerial abilities were examined using a 4-point Likert type scale of Highly Needed (HN=4), Moderately Needed (MN=3), Needed (N=3) and Not Needed (NN=1). Mean value ($\bar{x}$) was obtained and used for judgement on the competencies of the respondents on rice processing activities. The mean value $\bar{x}$ was obtained from 4+3+2+1/4=2.5. It implies that mean values of above 2.5 is above average, a mean of 2.5 implies average competencies while a mean of less than 2.5 is below average competencies.

Results and Discussion

Socio-economic characteristics of the respondents

The result in Table 1 on the socio-economic characteristics of the respondents shows that 53.8% of rice processors in Edu local government were females while (46.2%) of the respondents were males. This implies that more women were involved in rice processing in the study area.

Table 1: Distribution of Respondents Based on their Demographic Characteristics

Variables	Frequency	Percentage	$\bar{x}$± SD (Range)
Sex			
Male	74	46.2	
Female	86	53.8	
Age (Years)			49 ± 5.9 (30 – 70)
≤ 40	18	11.3	
41 – 50	77	48.1	
51 – 60	64	40.0	
61 – 70	1	0.6	
Marital Status			
Married	154	96.2	
Widow	6	3.8	
Religion			
Islam	105	65.6	
Christianity	51	31.9	
Others	4	2.5	
Educational status			
No formal education	38	23.8	
Adult education	7	4.4	
Primary education	53	33.1	
Secondary education	55	34.4	
Tertiary education	7	4.4	
Household size (Persons)			7 ± 2.3 (1 – 12)
1 – 4	16	10.0	
5 – 8	121	75.6	
9 – 12	23	14.4	
Years of experience in rice processing (Years)			16±6.8 (1 – 35)
1 – 10	41	25.6	
11 – 20	89	55.6	
21 – 30	29	18.1	
≥ 31	1	0.6	

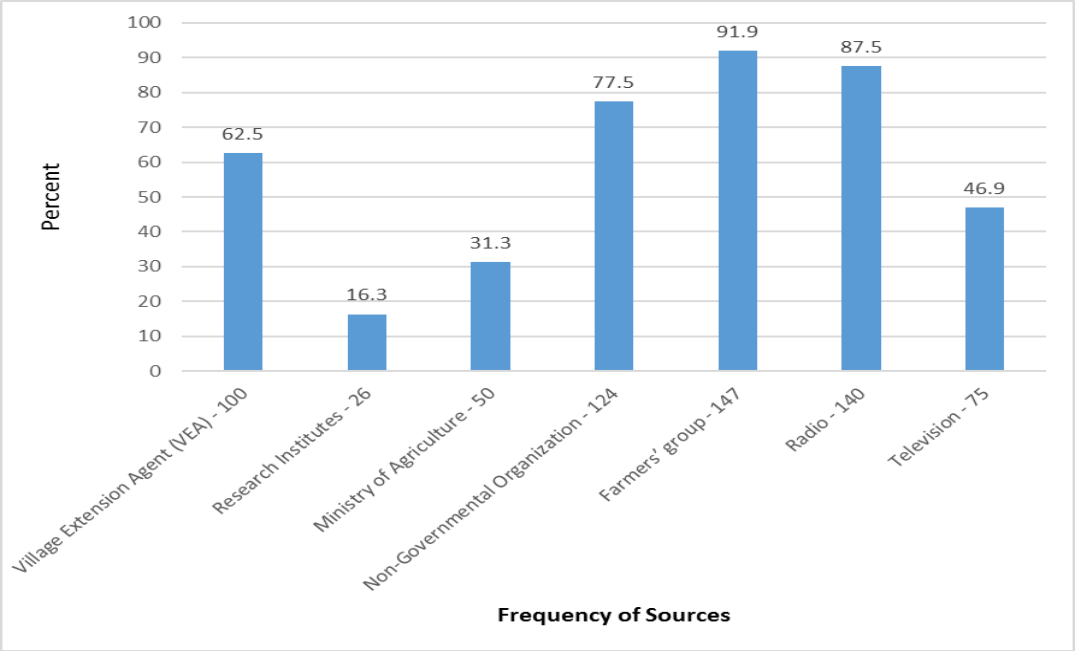
Source: Field Survey, 2022; $\bar{x}$ = Mean; SD = Standard Deviation

About 11.3% of the respondents were below 40 years, 48.1% were between the ages of 41 and 50 years, 40.0% were within the ages of 51-60 years, while minute proportion (0.6%) were within the ages of 61-70 years. The mean age of the respondents is 49 years.

This is in line with the findings of Siyao (2012) who stated that farmers' age may influence decision in rice processing activities. Young farmers are likely to accept new ideas faster than the farmers who are older in age and are not ready to take risk. Majority (92.6%) were married while the remaining (3.6%) of the respondents were widowers/widows. This indicates that majority of the rice processors are family women and men, which enable their household to engage and help in rice processing activities. Majority (65.9%) were Muslims, while smaller proportion (23.8%) of the respondents has no formal education, about 34.4% and 4.4% completed secondary and tertiary education. This shows that the rice processors are moderately literate. Mean household size and processing experience were 7 persons (75.6%) and 16 years (81.2%), respectively.

Sources of Information of the Rice Processors

As indicated in figure 1, majority (91%) of the respondents got information on rice processing from farmers group, about 87.5% from radio and 77.5% from nongovernmental organization (NGO). This was followed by village extension agents (62.5%), television (46.9%) ministry of agriculture (31.3%), respectively. Smaller proportion (16.3%) of the respondents got information from research institute. Information is an important factor influencing the competency of rice processors in the study area. The results indicate that the respondents got most of their information from farmers group while others got information from radio as well as village extension agents. This finding is in line with Tsado *et al.*, 2014 that information available to farmers may come from different sources.



Source: Field Survey, 2022 (Multiple responses were allowed)

Figure 1: Distribution based on sources of information on rice processing

Perceived Competency Needs of Rice Processors

From table 3, variables measured shows that there was no activity for excellency in competency of rice processing while the significant ones show high competency need in rice processing. These are separation of white rice ($\bar{x}$=2.98), whitening ($\bar{x}$=2.85), mist polishing ($\bar{x}$=2.69), length grading ($\bar{x}$=3.16), skill of hired labour and their need ($\bar{x}$=3.17), length grading ($\bar{x}$=3.16), (time management skills ($\bar{x}$=3.23), planning, prioritising and organising tasks ($\bar{x}$=2.98), and record keeping ($\bar{x}$=3.29) while storage ($\bar{x}$=2.48) is exactly at optimum level. The result further shows no competency need in cleaning ($\bar{x}$=1.73), winnowing and threshing ($\bar{x}$= 1.72 and $\bar{x}$=1.97), drying and de-hauling ($\bar{x}$=1.81 and $\bar{x}$=1.87), milling ($\bar{x}$=1.81).

This is probably due to the fact that the activities that are above the benchmark of 2.5 are those respondents are familiar with while those that are below benchmark are the ones respondents are not familiar with and need knowledge and training on. This corroborates the work of Kaur and Bains (2013) that farmers show competencies in most of the processing and farming activities, where they have been trained. On the managerial skills where results show mean value above benchmark implies that respondents need competencies in these areas. This is in line with the submission of Lazar and Paul (2015), who stated that farmers show high competency need in some managerial skills on farming activities unless they are trained.

Table 2: Distribution of Rice Processors According to their Perceived Entrepreneurial Competency Need Activities in Rice Processing

Activities	Percentage Response Freq (%)				$\bar{x}$± SD
	HN	MN	N	NN	
Cleaning	0	62(38.8)	15(9.3)	83(51.9)	1.73±0.69
Threshing	0	51(31.9)	14(8.7)	95(59.4)	1.97±0.91
Winnowing	0	57(35.6)	18(11.3)	85(53.1)	1.72±0.78
Drying	0	38(23.8)	10(6.2)	112(70)	1.81±0.70
Dehauling	0	43(26.9)	17(10.6)	100(62.5)	1.87±0.64
Destoning	0	34(21.2)	37(23.2)	89(55.6)	2.04±0.68
Husk aspiration	28(17.5)	104(65)	27(16.9)	1(0.6)	2.99±0.61
Milling	0	40(25.0)	14(8.8)	106(66.2)	1.81±0.70
Paddy separation	0	21(13.2)	33(20.6)	106(66.2)	2.22±0.62
Mist polishing	4(2.5)	20(12.5)	68(42.5)	68(42.5)	2.69±0.70
Whitening	24(15.0)	79(49.4)	56(35.0)	1(0.6)	2.85±0.72
Parboiling	26(16.2)	90(56.2)	39(24.4)	5(3.2)	1.75±0.76
Length grading	1(0.6)	30(18.8)	82(51.2)	47(29.4)	3.16±0.59
Blending	92(57.5)	24(15.0)	0	44(27.5)	1.90±0.71
Separation of white rice	85(53.1)	41(25.6)	0	34(21.3)	2.98±0.66
Weighing	17(10.6)	82(51.2)	56(35.0)	5(3.2)	1.99±0.97
Storage	7(4.4)	79(49.4)	59(36.9)	14(9.3)	2.48±0.73
Packaging skills	9(5.6)	18(11.2)	77(48.2)	56(35)	1.87±0.64
Record keeping	71(44.4)	23(14.4)	66(41.2)	0	3.29±0.63
Time management skills	116(72.5)	20(12.5)	24(15.0)	0	3.23±0.59
Managing/supervision	97(60.6)	44(27.5)	16(10.0)	3(1.9)	3.16±0.55
skills of hired labours and their needs	109(68.2)	10(6.2)	16	41(25.6)	3.17±0.52
Planning, prioritising and organising rice processing tasks	69(43.1)	67(41.9)	24(15)	0	3.24±0.64
Skills in decision making, control and negotiation	8(5.0)	62(38.7)	48(30.0)	42(26.3)	2.92±0.57

Source: Field Survey, 2022. Highly Needed (HN=4), Moderately Needed (MN=3), Needed (N=2) and Not Needed (NN=1) $\bar{x}$=Mean, SD=Standard Deviation

Level of Competency Needs of the Respondents

Table 4 shows the result of the categorization of the level of competency needs of the rice processors. It shows that majority (81.0%) of the rice farmers have high level of competency need, while smaller proportion (19.0%) shows medium level of competency need in rice processing activities.

Table 3: Distribution Based on Perceived Level of Competency Need

Percentage total score (Range: 42 – 90)	Frequency	Percentage	Decision
60 – 100	129	81.0	High
40 – 59	31	19.0	Medium
1 – 39	0	0.0	Low
Total	160	100.0	

Source: Field Survey, 2022

This implies that most of the respondents do not have competency in the entrepreneurial activities in rice processing. This submission is in line with Balogun *et al*. (2021) who observed that rice farmers in western Nigeria needed entrepreneurial training in rice processing as a result of their incompetency in entrepreneurial activities in rice processing.

Constraints to Rice Processing Among the Respondents

Table 5 shows result of the constraints of rice farmers on rice processing activities. The result revealed that the major constraint hindering the use of rice processing technology as indicated by the respondents is inadequate knowledge and skill ($\bar{x}$=3.62). This submission conforms with that of Kahan (2013) who identified inadequate knowledge as a constraint to entrepreneurial activities among farmers. Other constraints were poor agricultural extension coverage ($\bar{x}$=3.54), lack of market information ($\bar{x}$=3.36) and inadequate proper processing technologies ($\bar{x}$=3.12).

Table 4: Distribution of Respondents on Constraints Inhibiting Competency in Entrepreneurial Activities in Rice Processing.

Constraints	Percentage (%) Response				X±*SD*	Rank
	HS	S	LS	NS		
Inadequate credit facilities	33.0	28.4	38.6	0	2.01 ± 0.52	8th
Improper processing technologies	33.8	46.2	18.1	1.9	3.12 ±0.76	4th
Lack of storage facilities	21.2	44.4	30.6	3.8	2.83 ± 0.80	6th
High competition	19.4	27.5	34.4	18.8	2.47 ± 1.00	7th
Lack of infrastructural facilities	32.5	40.6	25.6	1.2	3.04 ±0.79	5th
Lack of market information	40.0	56.2	3.8	0	3.36±0.55	3rd
Inadequate knowledge and skill	63.8	36.2	0	0	3.62±0.48	1st
Poor agricultural extension coverage	55.6	43.1	1.3	0	3.54±0.52	2nd

Source Field Survey: 2022, $x = Mean$ **SD = Standard Deviation; HS (Highly severe), S (Severe), LS (Less severe) and NS (Not severe)**

Conclusion

In conclusion, the study identified some areas where rice processors are deficient in their processing activities, mostly in the managerial aspect, such as record keeping, time management skills, managing/supervision skills of hired labours, planning, and prioritising and organising rice processing tasks. Rice processors also encounter some constraints that inhibit entrepreneurial activities of rice processors such as inadequate knowledge and skill, poor agricultural extension coverage, lack of market information and inadequate processing technologies.

There is therefore, the need for sensitization of rice processors to take up processing as an entrepreneurial venture. This study also recommends that trainings on entrepreneurial activities in rice processing should be organised regularly, among rice processors to improve their entrepreneurial skills. Also, extension agents should educate the clienteles more on areas where they are deficient in rice processing, as well as provision of potential market information processing technologies to boost their sales.

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References

Balogun, O.L., Adeyonu, A. G and Ayantoye, K. (2021): Farmers' entrepreneurial Competencies and Technical Efficiency of Rice Farms. Review of Agricultural and Applied Economics. 24:12 – 19.

Cadoni, P., and Angelucci, F. (2013): Analysis of incentives and disincentives for rice in Nigeria. Technical notes series, https://www.fao.org/3/at581e/at581e.pdf .

Danbaba, N., Idakwo, P. Y, Kassum, A. L. Bristone, C. Bakare, S. O Aliyu, U. Kolo, I. N. Abo, M. E. Mohammed, A Abdulkadir, A. N. Nkama, I. Badau, M. H. Kabaraini, M. A. Shehu, H. Abosede, A. O. Danbaba, M. K. (2019): Rice Postharvest Technology in Nigeria: An overview of current status, constraints and potentials for sustainable development. Open Access Library Journal. 6:8-18.

Demont, M, Fiamohe, R and Thierry Kinkpé, A (2017): Comparative advantage in demand and the development of rice value chains in West Africa, *World Development*, 96:578-590.

Fiamohe, R., Diagne, A., and Flifli, V. (2014): Comparative analysis of rice milling strategies: Evidence from rice millers in Benin. *African Journal of Agricultural Research*. 9: 2765-2774.

GFRAS, (2016): Agricultural Entrepreneur. Global Forum for Rural Advisory Services Retrieved from: http://www.gfras.org/en/activities/the new extensionist.html.

Gyimah-Brempong, K., Johnson, and M. and Takeshima, H. (2016): The Nigerian Rice Economy: Policy Options for Transforming Production, Marketing, and Trade. International food policy Research Institute. 102:1-4.

Johnson, M. and Masias, I. (2016): Assessing the state of the rice milling sector in Nigeria: The role of policy for growth and modernization. International Food Policy Research Institute (IFPRI). 40:5-15.

Kahan, D. (2013): Entrepreneurship in Farming, Food and Agriculture Organization of the United Nations (FAO), ISSN: 2071-4505.

Kaur H. and Bains A. (2013): Understanding the concept of entrepreneur competency. *Journal of Business Management & Social Sciences Research.* 2:31–33.

Lazar N, and Paul G. (2015): Entrepreneurial competencies in a business enterprise. *An overview. International Journal of Scientific Research*. 4:305-308.

McElwee, G. (2008). A taxonomy of entrepreneurial farmers. *International Journal of Entrepreneurship and Small Business*. 6: 465-478.

Mulyana, M., Harianto., Hakim, D and Hartoyo, S. (2020): Entrepreneurial Activities And performance Of Rice Farming In: Bojongpicung Sub District, Cianjur Regency. European Journal of Molecular and Clinical Medicine 07:4528-4535.

Ojo, A.O and Oluwatayo, I.B (2015). Entrepreneurship as drivers of growth, wealth creation and sustainable development in Nigeria. Socioeconomica – *The Scientific Journal for Theory and Practice of Socio-economic Development*.4:325-331.

Osabuohien, E., Okorie, U. and Osabuohien, R. (2018). Rice Production and Processing in Ogun State, Nigeria: Qualitative Insights from Farmers' Association. In Obayelu, E. (Eds). Food Systems Sustainability and Environmental Policies in Modern Economics (pp. 188-215), Hershey, PA: IGIGlobal. DOI: 10.4018/978-1-5225-3631-4.ch009.1.

Salau, E.S. Adua, M.M. Maimako, M.B. Alanji, J. (2017): Entrepreneurship Skills of Small and Medium Scale Poultry Farmers in Central Agricultural Zone of Nasarawa State Nigeria. Journal of Agricultural Extension. 21:126-125.

Singha, K. (2012): Economics of paddy processing industry in India: A case of Karnataka. *Scientific Journal of Agricultural*. 1:80-91.

Siyao, P.O. (2012): Barriers in accessing agricultural information in Tanzania with a gender perspective: The case study of small-scale sugar cane growers in Kilombero District. The Electronic Journal on Information system in Developing countries. 51:1-19.

Tsado, J.H., Olaleye, R.S., Ajayi, O.J., Umar, I.S and Ndatsu, A.J. (2014): Information and Training Sources Used by Rice Farmers in North Central Nigeria. *Journal of Agricultural Extension*. 18:185-195.

Umeze, G.E and Ohen S.B. (2015): *Marketing Mix Strategies and Entrepreneurial Competence: Evidence from Micro Restaurants in Calabar Metropolis, Cross River State, Nigeria.* Proceedings

of the 29th annual International conference of Agricultural Economists held at Universita Degli Studi di Milano, Milan Italy from August 8-14, 2015 Pp1-30.

USAID, (2010): Improved Packages of Practices for Rice Production. United State Agency for International Development USAID.