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Channels of Distribution of Cowpea in Borno State of Nigeria

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Abstract
The study examined the two types marketing channels of distribution of Agricultural Produce in Borno State of Nigeria. These are the consumer goods marketing channel as well as the industrial goods marketing channels. The aim of the study was to establish if there are differences between the conventional marketing channels and that which is being utilized for the movement of the produce from the producers to the final consumers in the state. Data for the study were collected from both primary and secondary sources. The primary data was collected with structured questionnaire administered on producers, wholesalers and retailers of agricultural produce in Borno state. The secondary data was collected from journals articles and textbooks. Multi sampling technique was employed in the study. Simple random sampling was employed to select one local government area. The use of purposive sampling was used to capture the channel members as well as LGAs that relevant to the study. Descriptive statistics, Analysis of variance ANOVA were used in analyzing the data. The major findings of the study showed there were no differences in the channels used in the three Local Government Areas studied .Most (62.7%) of the cowpea marketers in Borno State used the conventional marketing channel in distributing their produce while 38.3% of the respondents made use of another channel that had more number of agents than the conventional marketing channels. Based on the findings of the study, it was recommended that the conventional marketing channels should be transformed to vertical marketing channels and farmers should be financially empowered, encouraged to form cooperatives.
Keywords: Channels, distribution, Cowpea, marketing, agricultural produce

Introduction
The distribution channel consists of producers, wholesalers, retailers, agents and consumers that are linked through the exchange process. A good distribution channel should take into account not only marketing decision but also how goods get to the final consumer at a reasonable price. In reality however, the number of participants along the distribution channel make the price of products higher than what it ordinarily ought to be. All things been equal, The longer the channel, the higher the price that a consumer pays for a produce.

In a distribution channel, all the members are necessarily expected to perform at least one value added function which the ultimate consumer pays for. Looking at the role of each intermediary/channel member in the agricultural produce market, there is a gap between the expected and the actual role performed (Mangison, 2000). Typically the return of each intermediary should commensurate with the risk that he takes. However in the Agricultural produce market, a producer that takes time to grow his produce and also takes the risk of weather uncertainties, gets a return that is less than what other channel members get. Hither to this period, there existed some government agencies like the marketing board that protected the weaker channel members, especially the producers. The liberalization of agricultural produce paved ways for more middlemen to replace the service of the marketing boards. The agricultural produce markets are now characterized by entry of channel members who replaced the government agencies. This makes the channel of distribution inefficient and has also widened the gap between the farm gate price and that which the consumers pay for produce. The aim of this paper is to examine the channels of distribution of cowpea in Borno State.

Channels of distribution move products and services from producer to consumer or to other business. Also known as marketing channels, channels of distribution consist of a set of independent organization involved in making a product or service available for use or for consumption (Bianco 2000). Boone and Kurnz 2004 define a marketing distribution channel as an organized system of marketing institutions and their interrelationship that promotes the physical distribution and ownership of goods and services from producer to consumer or end user. Also, kotler and Armstrong 2006 define the marketing channel as a set of independent organization involved in the process of making a products or service available for use or for consumption by the consumer or business end-user.

The choice of a distribution channel depends not only on the economic objectives i.e. how to put a product to the market at a lower cost. It also depends on the specific constraints of each market and of each channel operating in the market. According to Jallias (1986) the functional approach brings to light the function of a distribution channel. Which among others include;
a.   Spatial function; related to transport and assembly of products.

b.   Time function; related to stocking and financing transaction.
c.   Commercial function; dealing with product assortment, communication and customer services.

Jailas (1986) further pointed out that certain function become more important than others. The importance is in accordance with the specific constraints of each channel member. A farmer that has customers scattered out, if he sells directly to consumers would pay special attention to spatial function. Small farmers with limited resources, like in the case of most cowpea farmers in Borno state as opined by Polycarp and Bila (2005) would be more interested in the time function. Along with these criteria for choice are also the characteristics of supply. The other functions that can come into play are linked to the environment in which the channel operates. These factors include economic recession leading to a drop in purchasing power. In such a case, a producer would favor a short distribution channel, thereby limiting the profit margins of each channel (Debuc, 2000). In Borno state, however, the isolated settings of the farmer as well as the financial position of the farmer do not allow the frequent use of direct marketing channels. Except in few case as opined by Folorunso and Wazis (2005) Where they argued that because of the perish ability of the produce, farmers use direct distribution channels. They further opined that majority of the farmers reside in rural areas and thus are separated from the customers hence the use of indirect marketing channels cannot be avoided. Furthermore the weak financial position of the farmers also makes the use of direct marketing channel not feasible. This is because the farmers are not in a position to stock and transport the produce until a time when it would be needed. Another important issue is that since much information concerning the markets are not available (Amaza, 2006), the producer/ farmer may not know where and how to locate the consumers and at what price to sell to them.

Channel of distribution develops also as a result of economics of specialization and also because of gaps that separate the producer and the consumer. Buston 1979) listed the gaps involved as follows;
i.   Time gap; consumers purchase items at more or less discrete intervals.
ii   Space Gap; consumer are dispersed geographically, whereas producers are located in few areas for obvious reasons.
iii.   Quantity Gap; economic reasons make farmers produce large quantity while the middle men buy and sell in quantities required by consumers.
iv.   Communication and information Gap; consumers may not know the sources of the goods they want and producers may not know the potential purchaser of their produce.

Boone and Kurtz (2004) pointed out that the first step in selecting a channel is in determining the objectives of the producer as well as the distribution needs of the consumer. According to them, distribution intensity refers to the number of intermediacies through which a producer distributes his product. While taking these decisions, a producer must ensure that his products will have adequate market coverage. Adequate market coverage varies with the goals of the producers, the type of product and the consumer market segment in a target market. Booner and Tuge (2004) opined that there are 3 categories of distribution intensity namely.
1.   Intensive distribution; which seeks to provide saturation coverage of the market by using all available outlets. Usually an intensive distribution Strategy suits products and services with wide appeal across broad brands to choose from. In other words if one brand is not available, a customer will simply choose another. Example of goods distributed through the strategy include soft drinks, cigarette etc.
2.   Exclusive distribution; is an extreme form of selective distribution in which a producer grants exclusive rights to only a wholesalers or retailer to sell its products.

All the three types of distribution intensity may not work with the agriculture produce channel in Borno state especially the Cowpea market. These strategies can work in markets where participants have relatively equal power or where the producers have the power to dictate to other channel members on how their products can be distributed. The farmer/ producer in Borno state seem to lack such power. Another option for the distribution of a produce is the vertical marketing system (VMS), The VMS is a setup in which the producer, wholesaler and retailer act as a unified system. This is in contrast to the conventional marketing system that comprises of an independent producer, wholesaler and retailer, each existing as separate entity. These independent entities seek to maximize their own profit even if such goals have negative impacts on the system as a whole (Cravens 2000). A VMS is a planned system designed to improve distribution efficiency and cost effectiveness by integrating various functions throughout the distribution channel (Boone and Kurtz 2006). The VMS can be achieved through either backward or forward integration (Ash Yore 2010). Kotler and Keller (2004) opined that in forward integration a firm attempts to control downstream distribution. Backward integration occurs when a producer attempts to gain greater control or own the inputs in the production process.

A VMS offers several benefits as highlighted by Cravens (2000), first, it improve chances of controlling and

coordinating the steps in the distribution or production process. It can also lead to economy of scale. VMS may also let a producer to expand into new profitable businesses. However a VMS involves increased risk. When a producer takes control of an entire distribution chain he may also discover that he loses some flexibility in responding to market changes. Overtime, three categories of VMS have evolved. Okechukwu (2003) outlined these three categories as;

1. Corporate systems: A corporate marketing system combines successive strategies of production and distribution under single ownership. In this system, a single owner runs successive stages of production and distribution

2. Administered system: an administered VMS coordinates successive stages of production and distribution through the size and power of one of the members. In this system a dominant member exercises power and the other channel members obey.

3. Contractual system: A contractual. VMS consist of independent firms at different levels of production and distribution, who are joined together through contracts to obtain greater economies of scale or sales impacts than each one could achieve alone. Instead of common ownership of intermediate within a VMS or the exercise of power within an administered system, a contradual VMS coordinates distribution through formal agreements among channels members.

In practice, there are three types of agreements that set up the contradual system.

Viz
i.   Wholesalers sponsored voluntary channel
2.   Retailer cooperatives
3.   Purchaser.

In a wholesaler sponsored voluntarily chain, wholesalers organize voluntarily chain of retailers to help them compete with large chain organizations. The wholesaler develops a programme in which independent retailers standardized their selling practice and achieve buying economies to enable them group to compete effectively with outlets of rival chains. The wholesaler enters into a formal agreement with retailers to use a common name, maintain standardised facilities and purchase the wholesaler products. Often the wholesaler develops a lot of private brands to be stocked by members of the voluntary chain.

In retail cooperatives, retailers take the initiative and organize a new business entity to carry on wholesales and possibly production. The retailer purchases ownership shares in the wholesaling operation and agrees to buy a minimum percentage % of the inventories from this operation. The members usually adopt a common store name and develop common private brand. A channel members called franchisor might link several successive stages in the production and distribution process.

Another alternative for channel efficiency is the multi-channel distribution system. Multi channel distribution system is a distribution channel in which a single firm sets up 20 or more marketing channels to reach one or more customers. Also called the hybrid marketing channel, the multi channel system has many advantages. Some of which indicates increased coverage, lower channel cost, and customized selling. Most intermediates see gaining other intermediary cooperation as a high challenge (Nolas 2004).This is because most of the time, these intermediates use motivations such as higher mergers, special deals, premium sales context, etc to the producers. A times, they apply sanctions such as threats mainly to reduce markings.

The objectives of the study are:
(i)   examine the socio-economic characteristics of the channel members in Borno State,
(ii)   identify channel of distribution of cowpea in Borno State,
(iii) examine the marketing agents along the channel of distribution of cowpea in Borno state.

The Research questions for the study are:
1. Do the socio-economic characteristics of a channel member influence his choice of trade in the cowpea trade?
2. What are the differences between the conventional marketing channels of distributions and the channels of distribution of cowpea in Borno State?
3. Are there differences in the number of marketing agents along the channels of distribution of cowpea in Borno state?
4. Are there differences in the marketing channels of cowpea in the three senatorial zones of the state

Research Hypothesis

The following null hypothesis was postulated for testing.

H_{01}-There is no significant difference in the number of marketing agents along the channels of distribution of cowpea in Borno state.

Methodology

The method adopted for this study is the survey research design. The objective of the study and the nature of the data required for the study guided the choice of the methods. The questionnaire was the instrument used for this study. The population of the study includes all farmers, wholesalers and retailers of cowpea in Borno state. A total of 120 farmers, 90 wholesalers and 120 retailers were sampled. The difference in number of the wholesalers from that of the producer and the retailers sampled is because in Borno state agricultural produce market, the farmers and retailers out number of the wholesaler (Amaza et al 2006).

Purposive sampling technique was employed in selecting of the Local Government Areas for the study. One Local Government Area was purposely selected from each of the zones based on the production of cowpea. The Local Government Areas selected for the study includes Jere, Monguno and Biu.Also, 40 farmers, 30 wholesaler and 40 retailers were purposively selected from each of the Local Government Areas. The use of purposive sampling Technique was to capture the Local Government Areas that produce cowpea on a large scale as well as channel members that are relevant to the study. Both the primary and the secondary sources of data were employed in this study. The primary data for were collected with the use of structured questionnaires administered to farmers, wholesalers and retailers while the secondary sources of data include journals, books and government reports. Analysis of variance (ANOVA) was employed to determine whether there are significant differences in the number of marketing agents along the channels of distribution of cowpea in the 3 Local Government Areas of Borno State.

Data Analysis and Results

Contingency table for ANOVA of marketing agents along distribution channels in the 3 Local Government Areas of Borno State.

	Replications		
Treatment	Jere	Monguno	Biu
Channel 1 `	X11	X21	X31
Channel 2	X12	X22	X32
Channel 3	X13	X23	X33
Channel 4	X14	X24	X34
Channel 5	X15	X25	X35

*X number of marketing agents

Data presentation

Socio economic characteristics

The study sought to know the socio economic characteristics of the channel members in terms of sex age, educational qualification and source of initial capital outlay. The features are examined and presented in the table below

Socio-economic characteristics Variables	% of respondents			
	producer (n=120)	wholesaler (n=90)	Retailer (n=120)	Total (n=330)
Age				
20-290.6	12.0	19.3	31.8	
30-3911.4	2.3	7.1	20.7	
40-4912.6	9.7	7.1	29.3	
>50 13.3	2.3	2.6	18.2	
Total100	100	100	100	
Sex				
Male	66.4	79.5	84.2	76.3
Female	33.6	20.5	15.8	23.7
Total	100	100	100	100
Educational qualification				
No formal school	14	11.9	18.0	43.9
Primary	5.4	7.6	10.4	23.4
Secondary	3.2	3.2	2,7	9.1
Diploma	6.3	0.6	1.9	8.8
University graduate	8.8	2.8	3.2	14.8
Total	100	100	100	100
Source of initial Capital outlay				
Financial institutions	8.2	5.7	9.4	23.3
Family and friends	5.8	4.1	5,9	15.6
Personal savings	23.3	16.4	21	60.7

The result revealed that 76.3% of the channel members were male while 23.7% were female. The ages of the channel members were sought. This is to enable the study establish which age bracket embark predominately in the trade.

The study further revealed that 31.8%, 20.7% and 18.2% of the respondents are of the ages 10-29, 30-39, 40-49 years respectively. The educational level of the channel members was also sought. This is to know the literacy level among the channel members. Analysis of the result revealed that 2.3%,4%, 9.1% 8.8% of the respondents had attain up to primary, secondary diploma and university education respectively while 43.9% had no formal education. The source of initial capital for cowpea business was sought to know which of the sources contribute most to the business. The source considered in this study includes personal savings, contribution from friends as well as financial institutions. Financial institution, family and friends and personal savings accounted for 2.3%, 15.6% and 60% respectively of the source of initial capital outlay of the marketers.

The study sought to know if the channel members concerned is a producer or a trader in the business. The status of the channel member is given in the table 100% of farmers produce the crop that they sale and also sale from what they have produced.. Among the wholesalers 7.2% undertake in farming activities while92.8% do not engage in farming but only trading.7% of the ratailers do farm but about 93% do not farm the produce that they sale.

	Producer	Wholesaler	Retailer	Total
Producer	100	7.2	.7.0	114.2*
Trader	100	92.8	93.	284.8*
Total	200 *	100	100	

The figures are more than 100% because they are not mutually exclusive.

Category of channel members in this study includes producers wholesalers and retailers. The study
 sought to find out which category a channel member belongs to. Although a channel member can undertake in more than one trade, the study categorized them according to which category of trade they participate most in.The distribution is given below

	Frequency	%	cum%
Producer	119	37.7	37.7
Wholesaler	83	26.3	63.9
Retailer	114	36.1	100
Total	316	100	

The frequency on the table reveals that 37.7% were producers, wholesaler were 26.3% of the population, while 36.1% were retailer in cowpea business. The farmers and retailers outnumber the wholesaler.

Consumer channel
Basically there are 2 types of marketing channels of distribution. These are the consumer goods channel and the industrial channel cowpea in Borno state can be classified as a consumer as well as an industrial good. Thus the study took both channels into consideration.

Channel of distribution	% of respondent
Producer – consumer	7.5
Producer –retailer consumer	9.5
Producer wholesaler – retailer – consumer	30.8
Producer – wholesaler-jobber-retailer-consumer	7.8
Producer-agent-wholesaler-agent-retailer-consumer	38.3
Producer-industries	6.6

Analysis of the table revealed that 6.6% of the respondents do not m use the consumer channel of distribution but the industrial channel. In the first channel which is also termed the zero channel, the producer sells directly to the consumer. This channel is used by 7.5% of the marketers. The second channel which composed of producer retailer and the consumer was used by 95% of the marketers to sale their goods. The third channel which composed of producer wholesaler, retailer and the consumer was patronized by 30.8% of the marketer where as the fourth channel has 38.3% patronage of the respondents. All the other channel except the fifth channel are conventional marketing channels.

Industrial channel	%of respondents
Producer-industrial-consumer	5.1%
Producer-industrial-consumer-industrial-distributor	9.4%
Producer-producer representative-industrial distributor	13.9%
Sale through consumer channel	71.5%
	100%

About 71.5% of the channel members do not patronize the industrial goods channels. About 9% sold to industries through industrial distributors while 13.9% sold to industries via farmer representatives.

Tables 4.24 and 4.25 show the test of significant differences in the consumer.
And industrial marketing channels respectively

Consumer Channel ANOVAs Table

Treatment	Replications			
	Jere	Monguno	Biu	Total
Channel 1	0	10	4	21
Channel 2	44	3	4	11
Channel 3	8	12	10	30
Channel 4	38	34	38	110
Channel 5	7	6	10	23
Channel 6	34	40	44	121

Industrial Channel   ANOVA   Table

Treatment	Jere	Monguno	Biu	total
channel 1	63	64	14	
channel 2	14	14	11	
channel 3	12	13	13	
channel 4	12	14	18	

Test for significant difference in the number of channel members along the consumer channels of distribution of cowpea in Borno state

Frequency	Sum of square	d.f	mean square	f	sig
treatment	3.755	2	1.877	.845	.430
error	695.043	313	2.221		
total	698.797	315			

frequency	sum of square	d.f	mean square	f	sig
treatment	.471	2	.236	.187	.829
error	393.462	313	1.257		
total	393.934	315			

The consumer goods channels had a value of 0.430, while that of industrial goods has 0.829. Thus based on the result obtained there are no significant differences in the distribution channel of cowpea in the 3 LGA of Borno state. This channel of distribution used to move cowpea from its producer to the consumer in all the 3 local government that were studied.

Discussion of Result
In Borno state women are traditionally home keepers, while men are the family bread winners. Although most women undertake in farming activities they do so on a smaller scale and most often produce vegetables which are used for domestic use. This is so because most of the households financial responsibilities are shouldered by the men.

Most of the retailers fell in the age range of 20-29. At this age though young and energetic, channel members do not have much responsibility. They may have just one wife and one or two children, another reason is that at this young age, their parents bear the responsibility of keeping their homes. The assumption is that the parents are still alive and strong enough to farm and also take care of their families. Most of the farmers/ producers are between the ages of 30-39 and 40-49. At these ages people now tend to have more responsibility and have to seriously go into farming to cater for the growing demand of the family. The literacy level in the state is still very low. Nevertheless university graduates are now venturing into farming more than ever before.

Majority of the channel member's source of initial capital is through personal savings .These personal savings were obtained from accumulated market margin from the sale of their produce over time. Financial institutions are not forth coming in giving out loans. The producers are mostly subsistent farmers and do not have the collaterals or securities that financial institutions demand upon giving out credit facilities. Some farmers may not even know the procedures and formalities involved in securing loans.

Also, because of the subsistent nature of farming in the state, most channel members patronize the consumer goods channels. Only few make use of the industrial channel. Through the first channel, which is also called the zero channel, the producer sales directly to the consumer. This channel is used by about 7.5% of the marketers. This is in line with Folorunso and Wazis (2007). Who opined that some consumers buy directly from the farms for their consumption .The second channel was also used by few marketers. The third channel was used by about 30.8% of the marketers. Whereas the fifth channel was used by 38.3%. The fifth channel which has the greatest patronage is not in line with the consumer goods marketing channels as opined by Kotler (2000) cravens (2000) and Czinkota et al (1988). In this channel, the presence of agents between the wholesalers and the producers as well as between the retailer and wholesaler makes channel distinct from the conventional marketing channels. The agents do not take title or ownership of the produce but work on commission. In the first instance, the agent between the wholesaler and the producer collects a percentage of what he is able to sale from the wholesaler. In the second instance however, the retailers pays the agents a commission of what he is able to buy, the consumer

that directly buy from the producer does that at a lesser price than when intermediaries are involved. The more marketing agents that are involved in a deal, the more the consumer eventually pay for the produce.

Most of the marketers do not make use of the industrial goods channel, this is because in Borno state most of the farmers produce for subsistence. The farmers produce a little more than required for their personal consumption. Thus majority do not sale through the industrial channel. This is incongruence with the findings of Polycarp and Bila (2007), who opined that the farmers in Borno state are poor, indebted and do not produce more than can be sold through the consumer goods channel. Thus it can be deduced that because of the subsistence nature of marketing of agriculture produce. The industrial channels are not mostly patronized.

A good number of respondents make use of the conventional marketing channels for the distribution of their produce. But the majority makes use of another channel different from the conventional marketing channel. The new channel consists of more members than the conventional marketing channels. This had made the gap between farm gate price and that which the eventually farmer pays wider. Because of the subsistent nature of farming in the state, the industrial channel are not used by many. The distribution channel for cowpea is not as straight forward as the conventional marketing channels. Among the channel members are agent who do not take title of the produce but physical functions in order to obtain economic benefit and basically the channel use in the 3 LGAS similar.

Conclusion
To sum up, I would like to reiterate that Channels of cowpea in Borno state are not as straight forward as the conventional marketing channels. Among the channel are agents who do not take title of the produce but perform physical functions in order to obtain economic benefits.

Recommendations
- Channel members should be educated about better marketing channel to use in distribution their producer. The vertical marketing system if adopted by the channel members will make the channels more effective.
- Government should make credit faculties accessible or within the reach of farmers to enable them reap the benefits of the vertical marketing system.
- Farmers should also be enlightened or encouraged to form   Cooperative societies to benefit more from Government
- Government should look into possible areas of bringing back the marketing boards, which would make the channels of distribution shorter and also keep the gap between the farm gate price and that which the consumers pay minimal.

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