Name: Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES Online End Semester Examination, December 2020

Course: Consumer Behaviour & Market Research

Program: BBA CORE HRM Course Code: MKTG2002 Semester: III Time 03 hrs. Marks: 100

SECTION A

(30 marks)

- 1. There are **SIX** questions in this section. All are compulsory.
- 2. Each question carries equal marks
- 3. Instruction: Choose the correct answer.

Q.No	Question							
1	 Which of the following is true? a. Consuming refers to decisions about buying products. b. Consumer behaviour is about making people buy things. c. Consuming refers to the ways in which people use products. d. Consuming refers to force the companies to sell their products 	1						
2	 a. Information search comes before decision, but after need identification. b. Need identification comes after information search, but before decision. c. Need identification comes after decision, but before purchase. d. Need identification comes after evaluation of the alternatives, but before purchase. 	2						
3	What is the first step in the marketing research process? a. Hiring an outside research specialist b. Defining the problem and research objectives c. Developing the research plan for collecting information d. Implementing the research plan	3						

	Which of the following statements is not true?	
4	a. Attitudes are inherently unstable.b. Attitudes are learned.c. Attitudes are a predisposition to behave in a particular way.d. None of the above	4
5	The set of shared beliefs, behaviours and attitudes associated with a large group of people is called a. Religion b. Culture c. Social framework d. Personality	1
6	Marketing intelligence is everyday information about developments in the marketing environment that assists marketers in the preparation of their plans and strategies. This information is obtained from several sources and includes which of the following? a. Sales representative feedback. b. Competitor intelligence c. Customer feedback. d. All of the above.	2

SECTION B

(70 Marks)

- There is only <u>ONE</u> Case Study in this section.
 Instruction: Solve the case as per the Case Analysis Guidelines.

Q.No	Case Study	CO
7.	Analyze the following case:	4





MAHINDRA & MAHINDRA: MARKETING A LOW-PRICED MINITRACTOR

Dr. Rakhi Thakur wrote this case solely to provide material for class discussion. The author does not intend to illustrate either effective or ineffective handling of a managerial situation. The author may have disguised certain names and other identifying information to protect confidentiality.

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Mahindra & Mahindra Limited (M&M), the market leader in India's farm equipment sector, launched a cost-effective tractor, the Yuvraj 215 NXT, in July 2010, at a price point below ₹200,000.¹ The tractor was targeted at small and marginal farmers with less than two hectares of land, who were primarily dependent on bullocks or power tillers for farming but aspired to own a tractor to increase productivity at an affordable cost. The Yuvraj 215 NXT was positioned as a multi-utility piece of equipment with varied agricultural uses (including vegetable and orchard farming) that offered a strong value proposition in terms of productivity, power, and performance. The tractor was also suitable for non-farming applications, including transportation and water pumping.²

Small and marginal farmers with less than two hectares of landholding formed over 70 per cent of India's farming population.³ The penetration of tractors in this segment was the lowest, with some unorganized players and a few regional players. Although this situation demonstrated high potential, selling tractors in this segment was challenging due to a lack of product awareness, access to the product, and financial resources among target customers. With such a product in its portfolio, how should M&M promote the Yuvraj 215 NXT among small and marginal farmers?

¹ "Mahindra Rolls Out Nation's Smallest & Cheapest Tractor, Yuvraj-215," *The Economic Times*, July 28, 2010, accessed March 16, 2016, http://articles.economictimes.indiatimes.com/2010-07-28/news/27595685_1_lakh-tractors-marketing-m-m-farm-equipment-mahindra-rolls; ₹ = INR = Indian rupee; all currency amounts are in ₹ unless otherwise specified; US\$1 = ₹46 on July 1, 2010.

² Mahindra's Yuvraj 215 Drives into Maharashtra," Mahindra, April 19, 2011, accessed March 16, 2016, www.mahindra.com/news-room/press-release/1303215510.

³ Adapted from "All India Report on Number and Area of Operational Holdings," Agriculture Census, 2010–11, Ministry of Agriculture, 2012, accessed March 30, 2016,

http://rural.nic.in/sites/downloads/IRDR/4.%20Land,%20Land%20Use%20and%20Operational%20Holdings.xls.

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THE INDIAN TRACTOR INDUSTRY

India was the largest manufacturer of tractors in the world.⁴ With more than 75 per cent of the nation's economy dependent on agriculture, the farm equipment sector received significant attention from the Indian government. After India's independence from Britain in 1947, Indian tractor demand was met entirely through imports until 1960. Even though indigenous manufacturing of tractors had launched by 1961, India continued to import tractors to meet the total demand up until the late 1970s. Domestic production reached about 50,000 units in the early 1980s, and the industry continued to grow through the 1980s and 1990s.⁵ Further, the industry witnessed phases of growth, decline, and stagnation at different periods of time through the 2000s (see Exhibit 1). A large market size and favourable government policies attracted several domestic and international players to the market. In 2010, there were 10 players in the Indian tractor industry: Escorts Limited, Force Motors LTD., HMT, International Tractors Limited, John Deere, M&M, New Holland India, SAME DEUTZ-FAHR, TAFE, and VST (see Exhibit 2).

Tractors were purchased for both agricultural operations and commercial purposes. Agricultural demand for tractors was driven by various factors, including irrigation intensity and annual monsoon performance, landholding patterns, the availability of credit, minimum support prices of food grains, cropping patterns, the nature of the soil, service networks, replacement demand, and resale prices of tractors (see Exhibit 3).⁴ In addition to agricultural activities, tractors were also used for non-agricultural activities, such as transporting crops from farms to warehouses and agriculture markets. Tractors were also used as a robust transportation vehicle, because they were more suitable for uneven rural roads than other passenger automobiles. Commercial uses of tractors included transporting luggage in airports and hotels, driving on rural roads, and usage in infrastructure construction. Non-farm usage accounted for 30 to 35 per cent of domestic tractor demand. Mileage, field performance, repair and maintenance costs, attachments for using tractors for varied purposes, service networks, availability of spare parts, and resale value were the key parameters by which farmers decided on the brand and model of tractor they purchased.⁶

Similar to other parts of the world, the tractor market in India was segmented based on the power delivered by the engine (see Exhibit 4). Farm sizes in India were small as compared to those in other countries, with an average farm size below two hectares. Because only 15 per cent of Indian farms were above two hectares in size, and large farms above 10 hectares were few (see Exhibit 5), 30- to 50-horsepower (hp) tractors dominated the market. Farms that were more than two hectares in size were owned by affluent farmers who often held respectable positions like *sarpanch* (head of a village council). They usually owned motor pumps for irrigation, as well as other farm mechanization tools, and had several workers on their farms. Often they had non-agricultural businesses like mining, transportation, and rural construction, in which big tractors were useful. The ownership of tractors for these farmers not only helped in farm productivity but also added to their social status. The market for above-50-hp tractors was small, and included commercial establishments like hotels, airlines, and rural infrastructure construction companies. The potential market for below-30-hp tractors was huge because of the large community of farmers with small landholdings. However, the penetration of tractors in this segment was very low, and therefore, it contributed to a mere 10 per cent of the market.

⁴ Sukhpal Singh, *Agricultural Machinery Industry in India: A Study of Growth, Market Structure, and Business Strategies*, Centre for Management in Agriculture, Indian Institute of Management Ahmedabad, April 2009, accessed April 10, 2016, www.iimahd.ernet.in/users/webrequest/files/cmareports/3AgriculturalMachineryIndustry.pdf.

⁵ "Indian Tractor Industry," Tractor Manufacturers Association, accessed November 10, 2015, www.tmaindia.in/tractor-industry.php.

⁶ Singh, op. cit.

⁷ Anupam Sarkar, "Tractor Production and Sales in India, 1989–2009," *Review of Agrarian Studies*, accessed April 10, 2016, http://ras.org.in/tractor_production_and_sales_in_india_1989_2009.

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RURAL BUYING BEHAVIOUR⁸

Rural consumers in India were a blend of quality-conscious and aspirational buyers. They preferred to buy branded products, as brands offered them durability, ease of use, and a host of implicit benefits. Customers believed that branded products were reliable and offered good post-purchase service and maintenance. Further, quality products ensured ease of use; for instance, cheaper detergent bars forced women to spend more time doing laundry. Rural consumers believed that a branded product would cost more but would reduce labour and time. In this way, because of its guarantee of quality, a branded product would prove to be more cost-effective. For example, unsealed cooking oil could be adulterated, and could result in illnesses that would then necessitate treatment and, in turn, additional expenses.

Networking was a deep-rooted practice in rural India. Villagers would typically get together every day at community places and spend time reading newspapers and discussing day-to-day activities, recent trends in agriculture, and even advertisements. Opinion leaders, such as successful farmers, teachers, doctors, or village council members, played a significant role in forming opinions and changing trends. Social networks like non-governmental organizations' health workers also played an important role in building trust and influencing decisions. In terms of purchase decisions, dealers, shopkeepers, and distributors were also considered key influencers, and were often sources of information for villagers.

Villagers also looked to advertisements on posters and banners for information, and often discussed these. Based on influencers of buying decisions, companies used a mix of communication tools to promote their products (see Exhibit 6).

SMALL FARMERS

India had always been a country of small farmers, and individual landholdings had decreased even more over the years due to the division of land among legal heirs. The subdivision of land also led to boundary disputes and the subsequent loss of cultivated land along boundaries. Rural incomes were low, with an annual income of less than ₹75,000 per year for over 60 per cent of households in 2007. Additionally, earnings were seasonal in nature. Dependency on monsoons for irrigation, cyclical cash flows, an uneven distribution of irrigation systems, and a lack of structured credit facilities were some of the challenges faced by small farmers in the acquisition of modern farming machinery.

This segment had traditionally relied on bullocks and manual labour for farming. Wages of seasonal agricultural workers had been increasing due to rural job-creation schemes. Further, a bullock cart with two bulls cost around ₹70,000–115,000, with monthly maintenance costs of around ₹1,500–2,000. In addition, farmers had to spend money on the food and medical expenses of the bullocks. Due to the rising cost of bullocks and a shortage of seasonal migrant labour, there had been greater interest among farmers in purchasing tractors. Higher farm productivity, the ability to grow additional crops, and low maintenance costs as compared to bullocks were some of the key benefits of buying tractors. Typical usage of a tractor in a small farm was only for 35 to 40 days a year. Farmers who owned tractors often used them for transportation, and leased them out to others during periods of non-use. Many small farmers had used leased machinery, including tractors, during specific farming periods, and there was increased interest among this segment in farm automation. Consequently, many companies had launched below-30-hp tractors to meet

⁸ A. Sarangpani, *Rural Consumer Behaviour in India—A Study of FMCGs*, 1st ed. (New Delhi, India: University Science Press, 2009); Sanal Kumar Velayudhan, *Rural Marketing: Targeting the Non-Urban Consumer*, 2nd ed. (New Delhi, India: Sage Publications, 2007).

⁹ C. S. Prasad, Sixty Years of Indian Agriculture, 1947–2007 (New Delhi: New Century Publications, 2006), 12.

¹⁰ "Rural India: Glitter in Times of Gloom," Rediff India Abroad, April 17, 2009, accessed April 10, 2016, www.rediff.com/money/2009/apr/17perfin-rural-india-glitter-in-times-of-gloom.htm.

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the needs of small and marginal farmers. These offerings included the Mahindra Yuvraj 215 NXT, the Captain DI 2600, the Captain DI 120, the Mitsubishi Shakti MT 180D, the EuroTrac VST 180D, and the Greaves Ustad.¹¹

MAHINDRA & MAHINDRA LIMITED

M&M began operations in 1945, by importing Jeeps in semi-knocked-down kits from U.S.-based Willys and assembling them. In 1963, M&M entered into a joint venture with International Harvester and Voltas Limited to form International Tractor Company of India (ITCI). The company started commercial production in 1965. After M&M's collaboration with International Harvester ended in 1971, ITCI merged with M&M in 1977, and became its tractor division. The tractor division was renamed the "farm equipment division" after an organizational restructuring exercise in 1994. M&M became the largest tractor manufacturer in India in 1983, with an overall market share of 40 per cent. It further consolidated its position through inorganic growth. M&M manufactured tractors in the 15- to 92-hp segment, with Arjun, Bhoomiputra, Sarpanch, Shaan, and Yuvraj as its prominent brands. It was the market leader in all segments below 51 hp (see Exhibit 7).

As the market leader in the industry, M&M had a strong sales and service network. With over 2,500 sales and service points across the country, the company had a dealer network present in 70 per cent of India's 640 districts. These dealers deployed sales representatives to sell field-to-field, engaging with individual farmers, soliciting enquiries, closing sales, and ensuring after-sales service. The total number of field salespeople was over 12,000.

In 2007, M&M chose some high-performance dealers and converted them into advisory centres for villagers. The chosen 155 dealers, branded as Samriddhi Centres (*samriddhi* meaning "prosperity" in Hindi), were equipped with the infrastructure to provide farmers with information on weather, crops, pests, agricultural market locations, and prices; to offer soil- and water-testing facilities; and to run farm-productivity demonstrations. These services were designed to attract farmers to the dealerships, and boost the odds that they would become loyal M&M customers. M&M also had an extensive footprint in the farming sector, with group company Mahindra ShubhLabh Services Ltd. incorporated in 2000 to procure fresh produce from farmers, as well as to provide technical assistance in the form of agronomy, certification, grading, packaging, etc. This channel helped the company to build business connections with farmers. Further, M&M extensively used village agricultural festivals, weekly markets, and fairs to promote its products. During these events, products were displayed, test drives were arranged, and financing schemes were offered to visitors.

Being a conglomerate, M&M used its synergy with group companies to facilitate the sale of tractors. Because the availability of credit for the purchase of tractors was a key challenge for farmers, close collaboration with group company M&M Financial Services Limited played a critical role in the sale of tractors. M&M Financial Services Limited was a leading non-banking financial company in India. It was among the top tractor financers in India, and offered a wide range of financial products to address varied customer requirements. The firm had over 1,000 offices in 25 states across India, with more than 3 million

¹¹ Singh, op. cit.

¹² Mahindra Expands Dealership Network across India," Mahindra, March 23, 2013, accessed March 18, 2016, www.mahindra.com/news-room/press-release/1364532711.

¹³ "Samriddhi by Mahindra at a Glance," Samriddhi by Mahindra, accessed April 20, 2016, www.mahindraagri.com/SamriddhiByMahindra.aspx.

^{14 &}quot;Farm Equipment: Agribusiness," Mahindra, accessed April 20, 2016, www.mahindra.com/business/agribusiness.

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customers.¹⁵ This network facilitated tractor sales in different parts of the country. Farmers could use financial schemes from M&M Financial Services to buy a tractor with equipment/attachments for varied uses, and make payments at a convenient pace.

For service support, M&M capitalized on the expertise of group company Mahindra Logistics Limited to ensure the availability of spare parts at the after-sales stage in garages across India. ¹⁶ Mahindra Logistics Limited managed the supply chain needs of its customer companies, including inbound and outbound logistics, inter-plant movement, warehousing freight forwarding, and value-added services. The company had over 200 large corporate clients across various industries and operating verticals in India. ¹⁷

MAHINDRA YUVRAJ 215 NXT

In July 2010, M&M launched a 15-hp compact tractor, the Yuvraj 215 NXT (Yu raj) ¹⁸ targeted at farmers with small landholdings in the western state of Gujarat. The tractor offered a strong alternative to bullocks and power tillers for small and marginal farmers. With taglines like "Choti Kimat Badi Soch" (meaning "big idea, small price" in Hindi) and "Tractor Kisan Ka Sapna Nahin Huq Hai" (meaning "a tractor is not a dream but the right of a farmer" in Hindi), M&M positioned the Yuvraj as an affordable dream machine for small farmers. The tractor was specially designed for crops such as soybeans, cotton, maize, and sugarcane, which were popular among small farmers. The Yuvraj was built for multiple applications, including rotavation, cultivation, sowing, threshing, spraying, and haulage.

Because the tractor was positioned as an affordable farm mechanization tool for marginal and small farmers, product pricing was crucial. To ensure affordability, M&M had formed a joint venture with a local farm equipment manufacturer, Deepak Diesels Pvt. Ltd. (based out of Rajkot, Gajara). M&M priced the Yuvraj tractor below ₹200,000, while other tractors were available in the market at ₹250,000 and above. The Yuvraj offered a great proposition for farm mechanization to small farmers at a reasonable price point. However, making inroads in this segment of farmers—who were dependent on monsoons for irrigation and had seasonal income, limited financial resources, and low awareness and access to information—was not an easy task. How should M&M promote the Yuvraj 215 NXT among small and marginal farmers?

Dr. Pakhi Thakur is an assis ant professor at S. P. Jain Institute of Management and Research.

 ^{15 &}quot;About Mahindra: Finance," Mahindra, accessed December 12, 2015, www.mahindrafinance.com/about-us-overview.aspx.
 16 Ramesh Kumar, "Stacking the Odds in Favour of Service Parts in India," *Automotive Logistics*, April 1, 2013, accessed March 18, 2016, http://automotivelogistics.media/intelligence/stacking-the-odds-in-their-favour.

¹⁷ "About Us," Mahindra Logistics, accessed April 18, 2016, www.mahindralogistics.com/about-us.

¹⁸ "Mahindra Yuvraj 215 Nxt," Mahindra Tractors, accessed April 18, 2016, www.mahindratractor.com/tractor-mechanisation-solutions/tractor/yuvraj-215-nxt.

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EXHIBIT 1: TRACTOR SALES



Source: Adapted from Tractor Manufacturers Association, accessed June 22, 2016, www.tmaindia.in/tractor-industry.php.

EXHIBIT 2: MARKET PLAYERS AND MARKET SHARE (2009-10)

	Player	Market Share (%)
V	Escor's Limited	13.23
V	Force Motors LTD.	0.15
	HMT	1.22
	International Tractors	R
	Limited	8.68
	John Deere	7.01
	M&M	41.58
	New Holland India	4.72
	SAME DEUTZ-FAHR	0.42
	TAFE	22.06
	VST	0.93
. 1	9(

Source: Adapted from "Data and Statistics: Player-Wise Tractor Sales," CRISIL Research, accessed November 10, 2015.

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EXHIBIT 3: TRACTOR PURCHASE DRIVERS

Driver	Suitability							
Irrigation intensity and	Costly assets such as tractors were considered only when farmers were assured of							
monsoons	receiving essentials, such as a water supply.							
Landholding patterns	The landholding size determined the suitability of a tractor. 65% of farmers in India had landholdings of one hectare or below.							
Availability of credit	Around 75% of tractors purchased were on credit from public-sector banks and non-banking financial companies.							
Minimum support prices of food grains	The government fixed the procurement prices of food grains. These prices directly affected farmers' income and, in turn, loan repayment capability.							
Cropping patterns	For improving farm productivity, farmers practised multiple cropping. The use of tractors helped farmers to complete operations quickly, following which, they could move on to the next crop.							
Nature of soil	Smaller tractors were more suitable for soft soil conditions, while hard soil required high- powered tractors.							
Replacement demand	A tractor was typically replaced after six to eight years of use, but it was estimated that it							
and resale prices of	still continued to be useful for around 15 years. Because the farmer tried to cover the initial							
tractors	down payment for a new tractor from the sales proceeds of the existing tractor, the resale							
	price of tractors after a certain number of years was considered while making purchase decisions.							

Source: Adapted from "Tractor Usage Skewed towards Commercial Purposes," CRISIL Research, accessed November 10, 2015.

EXHIBIT 4: TRACTOR SEGMENTS

Segment	Horsepower	Market Share (2010)	Suitability
Small	Up to 30	10	Suitable for soft soil. Used for orchard farming, inter-cultivation, etc. Also suitable for farmers with 0.8 to four hectares of land.
Medium	31–40	32	Most suitable for Indian soil conditions.
Large	41–50	44	Preferred by farmers with larger landholdings.
Large	51 and above	(Mary)	Extensively used on big farms. Also used for non-agriculture purposes, including land development, rural construction, transportation, and special-purpose applications (e.g., industries, urban usage by airlines and hotels, etc.)

Source: Adapted from ICPA Research Services, *Indian Tractor Industry: Signs of Recovery Remain Elusive*, June 2015, accessed November 10, 2015, www.icra.in/Files/ticker/SH-2015-Q2-1-ICRA-Tractors.pdf.

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EXHIBIT 5: DISTRIBUTION OF OPERATIONAL LANDHOLDINGS IN INDIA

	Total			Distribution of holdings (%)				Distribution of operational area (%)					
Year	No. of holdings ('000)	Area ('000 hectares (ha))	Average size	Marginal (<1 ha)	Small (1.01–2 ha)	Semi-medium (2–4 ha)	Medium (4–10 ha)	Large (>10 ha)	Marginal (<1 ha)	Small (1.01–2 ha)	Semi-medium (2–4 ha)	Medium (4–10 ha)	Large (>10 ha)
1970–71	71,011	162,178	2.3	51.0	18.9	15.0	11.2	3.9	9.0	11.9	18.5	29.7	30.9
1980–81	88,883	163,797	1.8	56.4	18.1	14.0	9.1	2.4	12.0	14.1	21.2	29.6	23.0
1990–91	106,638	165,507	1.6	59.4	18.8	13.1	7.1	1.6	15.0	17.4	23.2	27.0	17.3
2000–01	119,931	159,435	1.3	62.9	18.9	11.7	5.5	1.0	18.7	20.2	24.0	24.0	13.2
2005–06	129,222	158,323	1.2	64.8	18.5	10.9	4.9	0.8	20.2	20.9	23.9	23.1	11.8

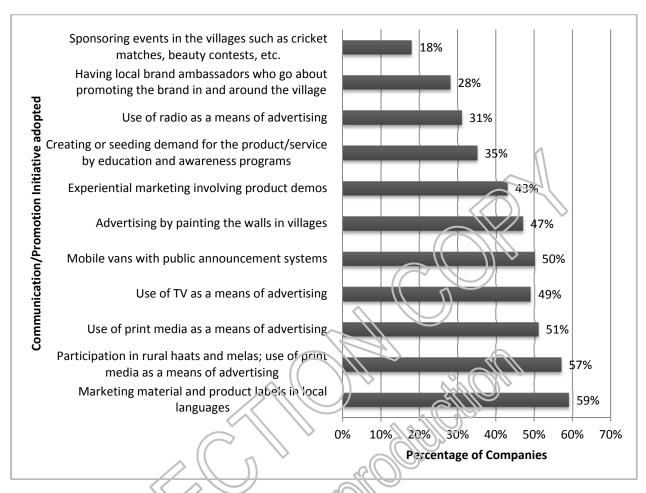
Note: Operational landholdings refers to all land that is used wholly or partly for agricultural production, and is operated as one technical unit by one person alone or with others without regard to the title, legal form, size or location.

Source: Adapted from "All India Report on Number and Area of Operational Holdings," Agriculture Census, 2010–11, Ministry of Agriculture, 2012, accessed March 30, 2016.



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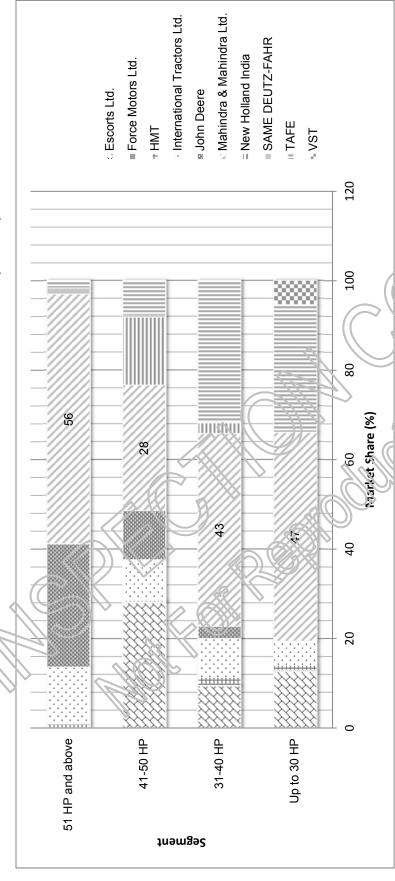
EXHIBIT 6: MODES OF PROMOTING PRODUCTS IN RURAL MARKETS



Source: Adapted from Accenture, Masters of Rural Markets: Profitably Selling to India's Rural Consumers, 2013, accessed March 18, 2016, www.accenture.com/in-en/~/media//Accenture/Conversion-Assets/LandingPage/Documents/4/Accenture-Masters-of-Rural-Markets-Selling-Profitably-Rural-Consumers.pdf.

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EXHIBIT 7: SEGMENT-WISE MARKET SHARE OF PLAYERS (2009-10)



Source: Adapted from "Data and Statistics: Market Share," CRISIL Research, accessed they wenter 10, 2019.