HUMAN RESOURCE MANAGEMENT IN BEEF CATTLE FARMS AT TRIÂNGULO MINEIRO REGION

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ABSTRACT:

The marketing pressures for economically viable, socially fair and ecologically correct production systems have required the farmers to adopt new management practices, aiming to increase the production scale, improve the quality of the products, and reduce costs. The historical utilization of abundant, cheap and disqualified labor in the rural sector has been a barrier to the adoption of technology. This study is an attempt to describe the human resources management that have been used by beef cattle farmers, as well as to analyze the management performance in labor and technical areas during the 2000/2001 year. Three-hundred and twenty questionnaires were sent by mail to farmers in the Triângulo Mineiro region. All of them were registered in the Brazilian Association of Zebu Breeders (ABCZ) reference file, and a gross response rate of 14.4% was obtained. The data were processed by the Statistical Package for Social Sciences (SPSS), and evaluated by using frequency and average tables. According to the results, the subsystems composing the human resource management system have been only partially adopted, besides presenting no interconnection with each other. In spite of that, it was noticed that top companies (in technical terms) presented the best human resources indicators, showing some level of functional relationship among the areas. Thus, beef cattle farmers should use such management models that benefit both knowledge and people, as these people are the promoters of the development in the farms. In this context, the managerial and operational training constitute a requirement, whereas the employees' motivation and engagement become a challenge to be overcome.

Keywords: Personnel, rural farm-management, livestock.

INTRODUCTION

The 20th century was distinguished by an unprecedented economical progress, based on accelerated development of the technology. Everything indicates that the technological innovation and the economical growth will continue in the century that begins.

Brazilian insertion in the international market, at the beginning of 90´s, marked, definitively, the country participation in the global economy, stimulating the process of industrial modernization. In the agricultural sector, the opening of the Brazilian economy led farmers to adjust themselves to the new reality, reducing costs, improving the products quality and the efficiency (Neves et al., 1997).

Due to the deep socioeconomic, politic, cultural and technological transformations that are in course all over the world, agricultural production became a very complex business, demanding increasing managerial abilities. The peculiarities of this activity also created a peculiar environment for decision-making: strong influence of physical and biological factors; a substantial gap between the time of planning the production and the commercialization; perfect

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competition market, and others (Vale, 1999).

The new paradigm of the agricultural production bring up some discussions concerning the competitiveness, scale of production and products safety. That can be understood by farmers as a need of structuring the production to make right decisions to get an efficient management of the natural, human, physical and financial resources.

The change of the work and worker conceptions transformed the established social relationships, breaking old paradigms as the taylorist/fordist production one. New values transformed the simple employee into a "complex worker", where factors like cooperation, communication, participation, command, delegation and autonomy became more important than ever. Nowadays, a high qualified labor is demanded and the enterprises have been privileging human potential and its specific culture to request their employees larger individual and collective engagement in work quality and performance (Pimenta, 1999).

The managerial skill became a competitive factor, capable to promote the "adjustment of the agricultural business to the change of the technology and of the market" conditions (Vale, 1999). That skill, usually measured in terms of technical-economical efficiency, has been evaluated on a new prism: human resource management. People are, indeed, the responsible for changes in the internal environment of the organizations.

The purpose of this study is to describe the practices of human resources management (HRM) used by beef cattle farmers at Triângulo Mineiro region, who are associated to the Brazilian Association of Zebu Breeders (ABCZ). Specifically, it was aimed to analyze the manager's efficiency in this area. The technology adoption and the technical efficiency of the farms were analyzed and compared to the performance in human resources area.

Beef cattle is an important economical activity in Brazil, supplying the protein needs of the population and for increasing the job offer, the income and the exports. The great variability of breeds of Brazilian herds allows the farmers to specialize in beef or milk or even both. In Brazil, beef is responsible for 79,5% of the total herd (Anualpec, 2005).

Study accomplished by Beef Cattle National Council (CNPC) showed that, in 1993, the beef cattle chain had approximately 1.8 million beef farms, 742 meat plants, 55,000 retailers, 558 leather industries and 4,150 shoes industries. The whole sector employed about 6,834,000 people, being 5.834.000 in animal production only (Pires, 2001).

The importance of the activity is not limited to the employment level. The country country is an important actor in the world scenery, as a big producer and exporter of beef as well. In 2004, Brazil produced about 8.5 million tons of equivalent carcass, 19,2% of which was destined to the external market, generating a US$ 2.8 billion revenue (Anualpec, 2005).

The technological, environmental and market tendencies became the new concerns in the agricultural businesses management, leading managers to optimize the use of the resources, adopt modern technologies, decrease the environmental impacts and consolidate the high quality of Brazilian beef. In this context, the quality of the workforce is extremely relevant. However, the workers' qualitative influence in the efficiency related to other resources is rarely considered. The rationalization in the use of the labor, therefore, is a fundamental aspect for the farm performance and it requests the manager the establishment of a management model that propitiates the human development and that, at the same time, lead the enterprise to the economical efficiency (Giles & Stansfield, 1990).

On the economical side, the use of human resources management models provides competitive advantages, since the high labor cost is diluted by its best use (Mills, 1986). In a social focus, it is seen as an opportunity to satisfy the workers' physical and psychological needs,

impacting, directly, on the motivation for work and, consequently, on the level of individual productivity (Maslow, 1977; Davis & Newstrom, 1992).

In the context of intense transformation where the cattle sector is inserted, the people's role is decisive to change the livestock sector from a traditional profile to a competitive industry. Labor qualification becomes a strategic factor for the companies to acquire competitive advantages. According to Instituto Euvaldo Lodi et al. (2000), a higher qualification of the rural workers, as well as the improvement in the quality of the work environment are essential conditions for the consolidation of the modern livestock.

HUMAN RESOURCE MANAGEMENT

The management area improved its level of knowledge with the incorporation of scientific methods in detriment of the empiric models, in the search for increasing the individual productivity and the rationalization of tasks execution. In a historical retrospective, it can be said that the pioneer in the study of the labor was Frederick W.Taylor, in the century XIX, what gave him the title of "Father of the Scientific Administration". His theory (with mechanicist focus) presented the study of the time and the movements, trying to reach maximum efficiency (Davis & Newstrom, 1992).

With the economical development, new factors became priority, defining new roles to personnel in the organization. The human nature started to be observed and the individual competences started to be stimulated and rewarded. In that context, the parameters of business success moved in the sense of the valorization of the work and worker.

In practice, however, conquer employees' loyalty and commitment became one of the biggest limitations of the organizations. The companies have long term goals (profit, growth...), while the workers have short term goals (remuneration, safety, promotion...). Another aspect that has been limiting HRM is the historical use of abundant, cheap and disqualified labor, especially in the rural sector. The administration process, typically authoritarian-paternalist, doesn't allow the professional's improvement, leading the enterprises to a high turnover rate (Ferreira et al., 1999).

The system of human resources management is configured through the following sub-systems: (i) recruitment and selection; (ii) description and analysis of positions; (iii) performance evaluation; (iv) plans of wages and of social benefits; (v) hygiene and safety on the workplace; (vi) database and information systems; and (vii) training and development of human resources programs (Chiavenato, 1997). The way to conduce these sub-systems depends on the enterprises objective, on the market where they act in, and on their personell's qualification. The manager must identify the implicit tendencies in HR politics, trying to decode them into abilities, as "a group of loyal and productive employees is the more effective competitive weapon of a company." In Figure 1, an example of arrangement of HRM is presented.

The "farm philosophy" represents the group of ideas used by the manager to guide the decision process. It is the base for the establishment of the organizational objectives and, consequently, of the human resources politics.

The factors "leadership, motivation and job conditions" influence the establishment of the HR politics and help to delineate the HR sub-systems and their linkages. The leadership style and the job conditions are related with the work environment (Knickerbocker, 1977) while the motivation permeates the whole managerial structure. The several theories that approach that theme present infinite interpretations concerning their presuppositions (Maslow, 1977; Davis & Newstrom, 1992; Nunes, 1994). In general, some theories tried to concentrate in internal factors of motivation, that influence the people's behavior (Theories of Content), while others

focused the process for which the behavior is unchained (Theories of Process).

Different farm objectives implicate different strategies. For instance, companies that search for a differential in performance, try to structure a system to propitiate the qualified employees' selection or the performance evaluation and merit reward.

Personnel's planning is responsible for the provision of information about the recruitment need, required professional's profile or the training priorities. The new employees' selection, as well as the results of the performance evaluation, should subsidize the decision process about the training programs.

The management of positions and wages is linked with personnel's motivation, because it is the function responsible for the establishment of the hierarchical and the salary levels, the subordination and the social benefits to employees.

The program of performance evaluation has is fully explored when it subsidizes other human resources programs in the enterprise, like training and promotion systems. Besides, it favors the development of the human relationships, stimulating the productivity through the mechanisms of retroaction of information to the appraised individuals (Chiavenato, 1997).

METHODOLOGY

The State of Minas Gerais presents strong cattle tradition that represent a significant portion of their municipal districts income. Its cattle herd is about 11,2% of the national herd, which gives the State the third position in the country. From this amount, 67% are destined to the beef production, that, in 2004, reached the volume of 909,000 tons of equivalent-carcass (Anualpec, 2005).

Triângulo Mineiro is the region that presents the larger relative participation in the cattle herd of the State, with 19% of the total. The growth of the intensive production system, as well as the more adequate managerial level, turned the Triângulo Mineiro one of the areas of larger agricultural development of Minas Gerais State (Fundação João Pinheiro, 1999).

For this research, beef cattle farmers from that region and associated to ABCZ (ABCZ, 2001) were selected. The data were collected in one municipal district of each one of the four micro-regions that compose the Triângulo Mineiro region, obeying the following criteria: (1) bigger cattle herd than the regional average, that was about 103.903 animals; (2) bigger number of active partners of ABCZ. The selected municipal districts were Iturama, Ituiutaba, Uberaba and Uberlândia.

This research was delineated using the survey technique, applying 320 questionnaires sent by mail. Its main disadvantage, however, is the low answer frequency. Usually, the percentile of return is among 10% to 50% (Almeida, 1989). The answer gross rate obtained was 14,4%. The estimated sampling error (Yamane, 1967) where:

$$n = \frac{N}{1 + N(e)^2}$$

n = sample size;
N = population size; and
e = sampling error

Considering N = 320 and n = 43 valid respondents, the sampling error (e) was 14,2%. Relative frequencies and averages were calculated using the Statistical Package for Social Sciences

(SPSS). Descriptive statistics were used because they allow an easy interpretation of the data, especially in the characterization of farmers and farms. Cattle farmers' managerial analysis was based on technical indicators and on the configuration of the human resources politics.

To understand the reality of the different types of farmers, they have been stratified according to the average stocking rate (1,15 UA/ha) more or less the standard deviation. So, the stratum I envolves farms up to 0,95 UA/ha, the stratum II included the farms with stocking rates (SR) between 0,95 UA/ha and 1,35 UA/ha, while the farmers that presented SR above 1,35 UA/ha composed the stratum III.

RESULTS AND DISCUSSION

The profile of the farms is presented for both the total of the sample and for the three productivity strata in the Chart 1.

The average stocking rate of the sample overcame the average stocking rate of the Triângulo Mineiro region (0,86 UA/ha), which reflects higher regional technological status. This is confirmed by the use of technologies like: artificial insemination (79% of the farms), fertility exam in bulls, breeding season, cross breeding and young steers production.

Cow-calf, rearing and fattening farms are the most common production system. There is, however, a tendency of specialization in only one production stage.

The average farms productivity was inversely proportional to the size of the livestock area, indicating sub-use of the land factor and predominance of extensive production systems.

Analysing profiles an apparent contradiction was verified: the youngest farmers (49 years) and with low experience (14 years) presented the best results. That situation was also evidenced by Azevedo (1999). As people become older, the aversion to risk increases while the acceptance to new technologies decreases.

HRM was usually conducted in an informal way, without no link between its sub-systems, which limit the potential of this tool.

The safety on the workplace is still a critical issue. Most farmers did not adopt none accident preventive activities and some didn't use part of the individual protection equipments (IPE).

The recruitment and the employees' selection considered the easiness and the low cost of these processes, choosing the following practices: recruiting people recommended by employees or by other farmers. The candidate's experience and abilities were unimportant to farmers, which is inadequate in a strategic view.

The most sructured system was the rewarding one. The salary level was established mainly based on position's importance and on the employee's performance, indicating that the aspect of labor productivity influenced wages definition. This situation reflects positively in the income and in job quality. Other types of rewards were also offered, like bonus for cow pregnancy or for born animal, or even participation in the production commercialization , in profits or in farm assets. Those rewards systems are very well appraised for the employees and mean the connection between effort and reward (Nunes, 1994).

Most of the farmers offered social benefits, specially, home and medical and hospital services. However, other benefits, as dentist, transport, meals, life insurance and others were not granted. The main difficulties presented by farmers to grant benefits were the shortage of financial resources and the belief that employees find them not valid. In these cases farmers could grant alternative low cost benefits and plan carefully the benefit system to full fit the real employees' needs.

In general, the cattle farmers evaluated their employees' performance but in a limited way.

Besides the purpose of rewarding employees, this system could be also used to subsidy the promotion and training programs (Chart 2). Therefore, a larger efficiency will be reached if some adjustments be done, in the sense of establishing an information system generated by the performance evaluation to be used as support of the decision process.

The training program evaluation was also a target of this research. But the results confirmed that too many cattle farmers were not concerned about that. Reasons to explain the short usage of training programmes were: farmers have no time, no material and equipments and no qualified person to lead the process. Among farmers that have trained the workforce (58%), the emphasis was in technical aspects and not in human factors, qualifying their employees just in demanded routine tasks (Figure 2). The number of trainings and of trained employees, by stratum, can be observed in the Chart 3. The main responsible agents for the workers' training were private consultants.

The performance of managers in the technical area was focused in production and productivity aspects. The technology adoption, in the different strata, determined, partly, farm efficiency, proving the cattle farmers' associated of ABCZ technical superiority if compared to national cattle farmers.

The behavior of the technical indicators presented better results for the stratum III (higher productivity), like: birth rate above 70%; weaning rate above 85%; 127,2 hectare/worker; 207,6 UA/worker and 1,75 UA/hectare. Such results are compatible with a high managerial performance in the technical area, reflecting higher productivity of the factors land, capital and labor. Those indicators for the others strata were worse, indicating that there is space for cattle farmers' technical improvement.

Concerning the managerial performance in human resources area, it was observed that the higher technical efficiency farms were the ones that presented the best results in the human resources area (Chart 3). Farms of the stratum III, compared to the others, demonstrated to have the best structure of human resources politics with interlinked sub-systems. In farms of the stratum I, of lower productivity, for instance, there was, in average, 2 social benefits; 5 meetings per year; 0,84 annual training; and 1,5 trained person. On the other hand, stratum III results were: 3 social benefits; 9 meetings/year; 1,30 annual training; and 2 trained workers/year. The stratum II obtained intermediate values in all indicators.

Half farms of the stratum I had at least one illiterate employee, while the frequency in the strata II and III were 28,6% and 10,0%, respectively. This fact can limit the use of some technologies, especially the ones that need reading of manuals, writing on charts, using spreadsheets etc.

CONCLUSIONS

Beef cattle farmers should try to use more suitable management models concerning the new role of the knowledge and of the people, as these are the promoters of the revolution in the farms, providing them competitiveness tools and higher productivity.

In this organizational structuring process, the managerial and operational training are indispensable to the success of the enterprise.

One of the ways that leads to the success certainly raisin for the motivation and commitment of the labor, reached through effective politics of human resources management.

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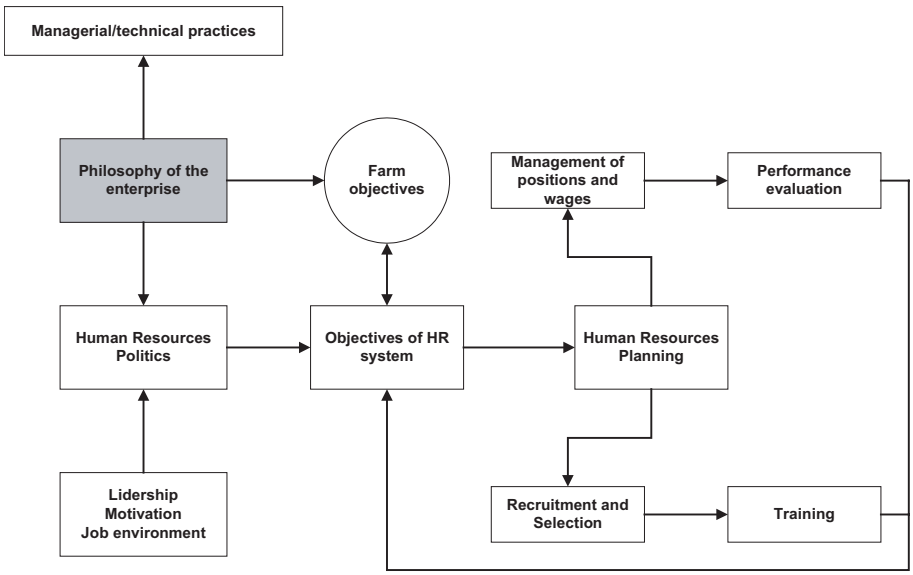


Source: adapted from Carvalho (1988), Chiavenato (1997) and Instituto Euvaldo Lodi et al. (2000)
Figure 1 – Human resource management system

Chart 1 - Profile of the beef cattle farms in Triângulo Mineiro region by stratum

Strata	Productivity (UA/ha)	Total area (ha)	Area with livestock (ha)	Total herd (UA)	Employees (workers/ farm)
I	0,79	2.854,6	2.145,3	1.519,5	7,63
II	1,21	1.069,4	744,3	844,8	4,71
III	1,75	1.031,3	672,5	1.143,3	6,10
Average	1,15	1.849,4	1.346,7	1.212,3	6,32

Source: data of the research.

Chart 2 - Percentile of farmers of the Triângulo Mineiro region associated to ABCZ, that adopted performance evaluation systems and their linkages

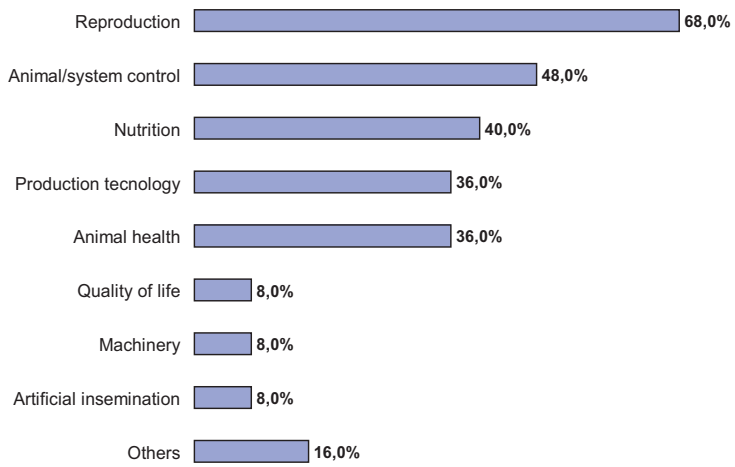
Performance evaluation system	Observed frequency (%)			Total Sample (%)
	I	II	III	
Evaluate employees' performance	68,4	78,6	80,0	74,4
Destine of system information:				
Promotion	21,1	21,4	60,0	30,2
Training programmes	46,2	45,5	62,5	50,0
Reward systems	68,4	64,3	90,0	72,1

Source: data of the research.

Quadro 3 - Indicators of managerial performance in the human resources area of the farmers of the Triângulo Mineiro region

Managerial indicators in HR area	Strata			Total average
	I	II	III	
Number of social benefits/farm	2,05	2,29	2,70	2,28
Number of employees meetings/year	4,89	4,07	8,60	5,49
Number of illiterate employee / farm	0,79	0,29	0,10	1,43
Number of training/year	0,84	1,07	1,30	1,02
Number of trained people/farm/year	1,47	1,86	2,00	1,72

Source: data of the research.



Source: data of the research.

Figure 2 - Subjects approached in the trainings accomplished by the beef cattle farms of the Triângulo Mineiro.