MARKETING PROBLEMS OF BANANA CULTIVATORS – AN EMPIRICAL ANALYSIS

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Abstract

The study is an attempt to present the selected respondent of the banana cultivators in the Guntur district. More specifically, it analyses on the low price fixed on banana bunches, storage facilities to banana bunches, lack of information about the demand and supply of banana bunches, middlemen commitment for offering prices, awareness of insurance services for the banana cultivators, and other related problems faced by the banana cultivators.

Keywords: Banana bunch – Demand and supply, Fixation of prices, storage facilities, Middlemen commitment for offering prices, Awareness of insurance services.

I. Introduction

Banana is one of the most important fruit crops grown in India. India stands first in world banana acreage as well as in production. The productivity per hectare in India is more than twice that of the world. The state of Maharashtra is the largest producer of banana in the country with 27 percent of total Indian production and it has the highest productivity. Even though nearly 23 percent of total world output is produced in India, the export is negligible when compared to other countries.

Banana is a rich source of carbohydrate and is rich in vitamins particularly vitamin B. It is also a good source of potassium, phosphorus, calcium, and magnesium. The fruit
is easy to digest, free from fat and cholesterol. Banana powder is used as the first baby food. It helps in reducing the risk of heart diseases when used regularly and is recommended for patients suffering from high blood pressure, arthritis, ulcer, gastroenteritis, and kidney disorders. Further, the processed products, such as chips, banana puree, jam, jelly, juice, wine, and halwa can be made from the fruit. Banana fiber is used to make items like bags, pots, and wall hangers. Besides, rope and superior quality paper can be prepared from banana waste. The banana leaves are used as healthy and hygienic eating plates.

II. Review of Literature

The banana crop is one of the major crops in Andhra Pradesh. Guntur climate and soil conditions are promising to cultivate the banana crop. However, the farmers who are cultivating the banana are facing various problems for marketing (SEDF 2014). Banana cultivation is a profitable business under-recognized loans. (Maurya, 1996; Kamal et al., 2015). The production of banana was facing various constraints such as Insufficient credit, the high cost of fertilizers, and technical guidance (Kathirvel 2008). The technology adoption in banana cultivation will improve the ease of production and remove strains for learning and usage of technology (Flett, 2004; Diana et al., 2007). Tshiunza et al., (2001) found the determinants of banana marketing in Nigeria. Chavan (2011) studied the marketing conditions of banana bunches in Maharashtra. Deshmukh (2013) has given various problems and development conditions of banana marketing in Jalgaonregion. Ray (2007) analyzed and forecasted the banana production conditions and marketing conditions. Mehta (2000) & Aijan(1986) analyzed the conditions of agriculture and remedies of agriculture farms. For marketing, the agencies are taking care of the efficiency of crop marketing (Biradar&Kasar, 1984; Chennarayadu, 1990). Ashtukar&Deole 1985; Arputhraj& Nair 1988; analyzed the economic conditions of the crop and consumer on fruit marketing.

III. Research Gap

There was no work in this area, hence there is a need on the part of the investigator to carry out the research extensively.

III.i. AIM of the Study

The study aims to understand and analyze the problems faced by the banana cultivators in Guntur district and offer suggestions to overcome, the majority marketing problems of the banana cultivators.

IV. Objectives

- To understand and analyze the problems and elicit the views of banana cultivators.
- To summarize the study and draw conclusions and offer suggestions for banana cultivators.

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IV.i. Scope of the Study
The study aims at exploration into the views of banana cultivators towards the problems, to discover the answer to questions such as
1. What is the Rational behind fixing the price for banana bunches?
2. What are the problems relating to the storage facility, demand and supply, middlemen marketing, and awareness of insurance services?

IV.ii. Selection of Sample
For data collection, a sample of 200 respondents, who have been cultivating banana crops is selected. The sample respondents are drawn from the list of cultivators, who were cultivating the banana crop from the last five years in Guntur district.

IV.iii. Period of the Study
The information relating to the problems of banana cultivators is obtained from them, who have been cultivating the banana crop for the last 5 years period, i.e., 2014-15 to 2018-19. The information relating to the banana crop its cultivation, marketing problems are covered during this period.

IV.iv. Source of Data
Data were collected from who are cultivating banana crop from the last five years in selected villages in Guntur district, through a questionnaire.

V. Data analysis and Interpretation

Table 1: Low price fixed on Banana bunches

| Sl. No | Categories of price | Total respondents | % of respondents |
|--------|---------------------|-------------------|-----------------|
| 1      | High                | 132               | 66              |
| 2      | Moderate            | 56                | 28              |
| 3      | Low                 | 12                | 6               |
| Total  |                     | 200               | 100             |

The information related to the problems faced by the selected respondent of the banana cultivators regarding of price of banana bunch, during the period of the study is furnished in table-1. It has been from the data that, majority percentage (66%) respondents of the cultivators stated that there is less price fixed for banana bunch and very less percentage (6%) respondents of the cultivators expressed high price fixed for banana bunches. It can be concluded that the maximum respondent of the cultivators think that they sold banana bunches for less prices.

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Table 2: Respondent’s opinions towards storage facilities

| Sl.No | Respondent's opinion | Total | Percentage |
|-------|----------------------|-------|------------|
| 1     | Good                 | 6     | 3          |
| 2     | Moderate             | 20    | 10         |
| 3     | Bad                  | 174   | 87         |
| Total |                      | 200   | 100        |

The data related to the problems faced by the selected respondent of the banana cultivators’ opinion, the availabilities of storage facilities to banana bunches during the period of study is furnished in the above table. It can be seen for the data in table 2, that majority percentage (87%) of respondents of the cultivator's availability of storage facilities are bad to banana bunches, followed by less percentage (10%) respondents of the cultivators think, moderately availability of storage facilities to the banana bunches, but a single-digit percentage (3%) respondent of the cultivators think, availability of storage facilities are good to banana bunches. It can be concluded that the maximum number of the respondent of the cultivators think regarding, the availability of storage facilities are bad to banana bunches.

H0: There is no significant difference between respondents’ opinions of Low price fixation and storage facilities

Table 3: ANOVA test for Low price fixation and storage facilities

| Method          | df   | Value     | Probability |
|-----------------|------|-----------|-------------|
| Anova F-test    | (2, 6) | 2.090625 | 0.2047      |
| Welch F-test*   | (2, 2.74722) | 1.701943 | 0.3305 |

*Test allows for unequal cell variances

Analysis of Variance

| Source of Variation | df   | Sum of Sq. | Mean Sq. |
|---------------------|------|------------|----------|
| Between             | 2    | 5792.889   | 2896.444 |
| Within              | 6    | 8312.667   | 1385.444 |
| Total               | 8    | 14105.56   | 1763.194 |

Category Statistics

| Variable | Count | Mean   | Std. Dev. | Std. Err. of Mean |
|----------|-------|--------|-----------|------------------|
| GOOD     | 3     | 2.000000 | 1.000000 | 0.577350          |
| MODERATE | 3     | 6.666667 | 5.686241 | 3.282953          |
| BAD      | 3     | 58.000000 | 64.21059 | 37.07200          |
| All      | 9     | 22.222222 | 41.99041 | 13.99680          |
At 5 percent significance level, 5.14 is $F$ tabulated value which is greater than the calculated $F$ value i.e. 2.09. Hence, the null hypothesis has been accepted. Therefore, there is no difference between low price and storage facilities.

**Table 4: Lack of information about the demand and supply**

| Sl.No | Categories of the opinion | Total respondents | % of respondents |
|-------|---------------------------|-------------------|-----------------|
| 1     | Agree                     | 127               | 63.5%           |
| 2     | Neutral                   | 58                | 29%             |
| 3     | Disagree                  | 15                | 7.5%            |
| Total |                           | 200               | 100%            |

The information related to the problems faced by select respondents of the cultivators regarding the lack of information about demand and supply of banana bunches during the period of the study is furnished in the above table-4. It can be seen from the data that, majority percentage (63.5%) respondent of the cultivators are of the opinions are agree for lack of information about the demand and supply of banana bunches, followed by 29% percentage respondents of the cultivators are of the opinions are neutral for lack of information about the demand and supply, similarly very less percentage (7.5%) respondents of the cultivators are of the opinions are disagree for lack of information about the demand and supply of banana bunches. It can be inferred from the above foregoing discussion that, majority respondents of the cultivators are expressed their opinions agree for lack of information about the demand and supply of banana bunches, but single-digit respondents are of the opinions are disagree.

H0: There is no significant difference between respondents’ opinions of Low price fixation and lack of information.

**Table 5: ANOVA test for Low price fixation and lack of information**

| Method               | df       | Value    | Probability |
|----------------------|----------|----------|-------------|
| Anova F-test         | (2, 6)   | 1.48711  | 0.2989      |
| Welch F-test*        | (2, 2.75099) | 1.85970  | 0.3084      |

*Test allows for unequal cell variances

| Analysis of Variance | df | Sum of Sq. | Mean Sq. |
|----------------------|----|------------|----------|
| Between              | 2  | 2128.22    | 1064.111 |

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F table value is greater than the F calculated value i.e., 1.48. Hence, the null hypothesis has been accepted. Therefore, there is no difference between the low price and the lack of information.

Table 6: Middlemen commitment for offering prices to Banana cultivators

| Sl.No | Respondents opinions | Total No. of respondents | % of respondents |
|-------|-----------------------|--------------------------|------------------|
| 1     | Agree                 | 35                       | 17.5             |
| 2     | Partially agree       | 47                       | 23.5             |
| 3     | disagree              | 118                      | 59               |

The information related to the problems faced by the selected respondent of the cultivators regarding middlemen commitment for offering prices to banana cultivators, during the period of the study is furnished in table-6 is 0.4. It can be seen from the data that, majority percentage (59%) respondents of the cultivators think are disagree on middlemen commitment for offering prices to the banana cultivators, followed by 23.5% percentage respondents of the cultivators are expressed partially disagree on middlemen commitment for offering prices. But a few percentage (17.5%) respondents of the cultivators think are agree on middlemen commitment offering prices to the banana cultivators. It can be inferred from the above foregoing discussion, more than FIFTY percentage (59%) respondent of the cultivators are the opinions are disagreed and less than fifty percent (41%) respondent of the cultivators
think are agree and partially agree on middlemen commitment for offering price to banana cultivators.

H0: There is no significant difference between respondents’ opinions of Low price fixation and middlemen commitment.

Table 7: ANOVA test for Low price fixation and middlemen commitment

| Method            | df   | Value    | Probability |
|-------------------|------|----------|-------------|
| Anova F-test      | (2, 6) | 0.949214 | 0.4384      |
| Welch F-test*     | (2, 3.4548) | 0.55438 | 0.6183      |

*Test allows for unequal cell variances

Analysis of Variance

| Source of Variation | df   | Sum of Sq. | Mean Sq. |
|---------------------|------|------------|----------|
| Between             | 2    | 1341.556   | 670.7778 |
| Within              | 6    | 4240.000   | 706.6667 |
| Total               | 8    | 5581.556   | 697.6944 |

Category Statistics

| Variable   | Count | Mean     | Std. Dev. | Std. Err. of Mean |
|------------|-------|----------|-----------|-------------------|
| AGREE      | 3     | 11.6667  | 7.571878  | 4.371626          |
| PARTIALLY | 3     | 15.6667  | 11.06044  | 6.385748          |
| DISAGREE   | 3     | 39.33333 | 44.04921  | 25.43183          |
| All        | 9     | 22.22222 | 26.41391  | 8.804635          |

The F calculated value is 0.94, which is less than the tabulated value. Hence, the null hypothesis has been accepted. Therefore, there is no difference between low price and middlemen commitment.

Table 8: Awareness of insurance services for the Banana cultivators

| Sl. No | Respondent opinions | Total No. of respondents | % of respondents |
|--------|----------------------|--------------------------|------------------|
| 1      | Yes                  | 06                       | 3                |
| 2      | No                   | 194                      | 97               |

The data related to the problems faced by the selected respondent of the banana cultivators regarding, awareness of insurance services for the banana cultivators, during the period of the study, is furnished in table-8 is 0.5. It can be seen from the data, that the majority percentage (97%) respondent of the banana cultivators thinks, there is a lack of awareness of insurance services for the banana cultivators, but a very less percentage (3%) respondent of the cultivators are expressed, they have an

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awareness of insurance services. It can be concluded that the maximum number of respondents think regarding the lack of awareness of insurance services.

H0: There is no significant difference between respondents’ opinions of Low price fixation and awareness of insurance services.

**Table 9: ANOVA test for Low price fixation and awareness of insurance services**

| Method                  | Df  | Value   | Probability |
|-------------------------|-----|---------|-------------|
| t-test                  | 4   | -       | 0.1433      |
| Satterthwaite-Welch t-test* | 2.001122 | 1.817295 | 0.2107      |
| Anova F-test            | (1, 4) | 1.817295 | 0.1433      |
| Welch F-test*           | (1, 2.00112) | 3.30256 | 0.2107      |

*Test allows for unequal cell variances

**Analysis of Variance**

| Source of Variation | df | Sum of Sq. | Mean Sq. |
|---------------------|----|------------|----------|
| Within              | 1  | 5890.66    | 5890.67  |
|                     | 4  | 7134.67    | 1783.66  |
| Total               | 5  | 13025.3    | 2605.07  |

**Category Statistics**

| Variable | Count | Mean       | Std. Dev. | Std. Err. of Mean |
|----------|-------|------------|-----------|------------------|
| YES      | 3     | 2.000000   | 0         | 0.577350         |
| NO       | 3     | 64.66667   | 9         | 34.47866         |
| All      | 6     | 33.33333   | 5         | 20.83693         |

F table value is greater than the calculated value i.e., 3.30. Hence, the null hypothesis has been accepted. Therefore, there is no difference between low price and awareness of farmers.

**VI. Findings**

1. The majority respondent of the cultivators thinks that they are fixing fewer prices on banana bunches.
2. The maximum number of the respondent of the cultivators think regarding, the availability of storage facilities are bad to banana bunches.
3. The majority respondent of the cultivators is expressing their opinions are agreeing for lack of information about the demand and supply of banana bunches, but single-digit respondents are of the opinions are disagree.
4. More than FIFTY percentage (59%) respondent of the cultivators are of the opinions are disagree to middlemen commitment for offering price to banana bunches

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5. The majority respondent of the cultivators thinks that they have a lack of awareness of insurance services to the banana cultivators.

VII. Conclusion

Banana is an important fruit in India. But the banana cultivators facing so many marketing problems, because they are selling the banana bunches with low prices, there is no storage facilities to banana bunches after a certain period bunches are perishable, the middlemen and brokers are cheating the cultivators i.e., they are committed at one price, but finally, they paying to the cultivators with less than the committed price. And also they are giving falls statement to the banana cultivators’ i.e., nowadays there is no demand for banana bunches.

VII.i. Suggestions

If, the government should establish a storage facility for each model in the district to the banana bunches then avoid the damage (or) perishable to the banana bunches. The government should establish a banana market in each district and directly purchase from the banana cultivators with seasonal prices and providing the normal prices to the final consumers. And also create adequate awareness of insurance services to the banana cultivators.

Conflict of Interest :

Authors declared : No conflict of interest regarding this article.

References:

I A Chavan, S P Kalyankar, S V Wakle (Jan 2001), A study of marketing of banana in the Parbhani market of Maharashtra state.

II B W Ashtukar, C Deole (Jan 1985), Producer's Share in consumer's rupee A case study of fruit marketing in Maharashtra.

III C Arputhraj, K S Nair (Jan 1988) Economics of banana in Kerala,

IV D D S Deshmukh (Jan 2013), Constraints in Banana marketing and scope of improvement: A case study for the Jalgaon region.

V Diana, A., Rogers, K., Pauline, B., Winnie, A., Lucy, A. & Margaret, B., 2007. Indigenous Knowledge in Agriculture: A Case Study of the Challenges in Sharing Knowledge of Past Generations in a Globalized Context in Uganda.
VI  Flett, R., Alpass, F., Humphries, S., Massey, C., Morriss, S. & Long, N., 2004. The Technology Acceptance Model and Use of Technology in New Zealand Dairy Farming. Agricultural Systems, 80, pp. 199-211. doi:10.1016/j.agsy.2003.08.002.

VII  Hymavathi, C.H., Koneru, K. (2019). Investor’s perception towards the Indian commodity market: An empirical analysis concerning the Amaravathi region of Andhra Pradesh. International Journal of Innovative Technology and Exploring Engineering. 8 (7), pp. 1708-1714.

VIII  Hymavathi, C.H., Koneru, K. (2018). Investors’ awareness towards commodities market concerning GUNTUR city, Andhra Pradesh. International Journal of Engineering and Technology (UAE). 7 (2), pp. 1104-1106.

IX  Hymavathi, C., Koneru, K. (2019). Role of perceived risk in mutual funds selection behavior: An analysis among the selected mutual fund investors. International Journal of Engineering and Advanced Technology. 8(4), pp. 1913-1920.

X  KishanVarma, M.S., Koneru, K., Yedukondalu, D(2019). Affect of worksite wellness interventions towards occupational stress. International Journal of Recent Technology and Engineering. 8 (1), pp. 2874-2879.

XI  K C Chennarayadu (Jan 1990), Land use efficiency of banana-An application of frontier production Function.

XII  K S Biradar, D V Kasar. (Jan 1984) A Study of the relative efficiency of co-operatives vis-a-vis other Agencies in the marketing of Jalgaon banana in the Delhi market.

XIII  Kamal MS, Ali MA, Alam,MF., Cost and return analysis of banana cultivation under institutional loan in Bogra, Bangladesh, Feb 15.

XIV  Kathirvel N. 2008. Banana Production in Karur District. Kisan World 35:13-14.

XV  Manukonda et al. (2019). What Motivates Students To Attend Guest Lectures?, The International Journal of Learning in Higher Education. Volume 26, Issue 1. 23-34.

XVI  M. Wali Ullah,Rizwana Kawser, M. Alhaz Uddin, A Direct Analytical Method for Finding an Optimal Solution for Transportation Problems, J. Mech. Cont. & Math. Sci., Vol.-9, No.-2, January (2015), pp 1311-1320.

XVII  Neelima, J., Koneru, K. (2019). Assessing the role of organizational culture in determining employee performance - empirical evidence from the Indian pharmaceutical sector. International Journal of Innovative Technology and Exploring Engineering. 8 (7), pp. 1701-1707.
XVIII N Aijan (Jan 1986) Regulated markets in Tamil Nadu: A Malady remedy analysis. Agricultural Situation in India,

XIX P K Ray. (Jan 2007) Banana Production and Research in Bihar: Present Status and Future trusts, Banana: Technology Advances.

XX P Maurya (Jan 1996) Profitability of banana plantation in the Hajipur district in Bihar. Bihar.

XXI R Mehta (Jan 2000), Analysis of seasonality in prices of Agricultural Commodities Agricultural Situation in India

XXII Sivakoti Reddy, M. (2019). Impact of RSERVQUAL on customer satisfaction: A comparative analysis between traditional and multi-channel retailing. International Journal of Recent Technology and Engineering. 8 (1), pp. 2917-2920.

XXIII Sivakoti Reddy, M., Venkateswarlu, N.(2019). Customer relationship management practices and their impact over customer purchase decisions: A study on the selected private sector banks housing finance schemes. International Journal of Innovative Technology and Exploring Engineering. 8 (7), pp. 1720-1728.

XXIV Sivakoti Reddy, M., Murali Krishna, S.M. (2019). The influential role of retail service quality in food and grocery retailing: A comparative study between traditional and multi-channel retailing. International Journal of Management and Business Research. 9 (2), pp. 68-73.

XXV Sivakoti Reddy, M., Naga Bhaskar, M., Nagabhushan, A. (2016). The saga of silicon plate: An empirical analysis of the impact of socio-economic factors of farmers on the inception of solar plants. International Journal of Control Theory and Applications. 9 (29), pp. 257-266.

XXVI Suhasini, T., Koneru, K. (2019). Employee engagement through HRD practices on employee satisfaction and employee loyalty: Empirical evidence from the Indian IT industry. International Journal of Engineering and Advanced Technology. 8 (4), pp. 1788-1794.

XXVII Suhasini, T. Koneru, K. (2018). A study on employee engagement driving factors and their impact over employee satisfaction - An empirical evidence from Indian it industry. International Journal of Mechanical Engineering and Technology. 9 (4), pp. 725-732.

XXVIII. V. Sravani Chari, M. Sivakoti Reddy2 Sustainable Consumption: A Study on Factors Affecting Green Consumer Behavior, J. Mech. Cont.& Math. Sci., Vol.-14, No.-5, September-October (2019) pp 850-861

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