



USERS' PERCEPTION TOWARDS COLD STORAGE OF HAVERI DISTRICT OF KARNATAKA STATE

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ABSTRACT

Cold chain sector plays an important role in addressing the many problems such as Poor post harvest care, highly complex and inefficient supply chains, lack of storage and processing infrastructure etc.,. Addressing the issue of perishability, cold chain extends the shelf life and thus usability of the commodity in its best form. The advantages of employing cold chain are increasing the availability of produce in non-season period, increasing the affordability and accessibility by streamlining the supply chains, improving the quality of the produce and increase in employment generation. Many people get the benefit of cold storages. But, to what extent the users of cold storages are satisfied by the service that the cold storages are providing is really matters much. Hence, the present study made an attempt to assess the users' perception towards cold storages of Haveri district of Karnataka State. The study has considered the 520 cold storage users which consisted of 50% farmers and remaining 50% are businessmen. To determine the users' perception towards cold storages the different services or facilities providing by the cold storages are taken into consideration. And the response towards these facilities and services gathered from 520 cold storage users in order to assess their perception towards cold storages of Haveri district of Karnataka State.

Keywords: Cold storage users, Users' perception, Haveri District, facilities, Services

INTRODUCTION

Cold Storage Sector in India is a sunrise sector that has gained prominence over the recent years. Availability of huge quantity of perishable produce, changing lifestyles and appropriate fiscal policies has given a considerable push to the industry's growth. This sector serves as a vital link between the agriculture and industrial segments of the economy. To strengthen this link entrepreneurship plays a vital role because for the establishment of such cold storages we need many entrepreneurs with entrepreneurial qualities. Presently entrepreneurs have established 7,645 cold storages in India with a storage capacity of 34,957

thousand metric tons. By this India is maintaining the position of the largest total cold storage capacity among the many countries in the world.

Cold Storage is an environment controlled warehousing space with multiple chambers intended for the bulk storage of perishable produce. It is designed for long duration storage of produce to build an inventory buffer, which will serve to smoothen the episodic production by stabilizing & sustaining the supply lines. These are normally constructed in areas close to producing areas (farm-gate) to facilitate quick access to producers for a selective set of crops only.

Cold storage plays an important role in the preservation of perishables. It helps in scientific preservation of perishables, stabilizes prices by regulating marketing period and supplies. It also helps the primary producer from distress sale and encourages farmers to produce more. In a view of the fall in prices of vegetables and fruits immediately after harvest and to avoid spoilage of vegetables and fruits worth crores of rupees, it has become necessary to create cold storage facility in the producing as well as consuming centres to take care of the existing and projected production of fruits including red chilli and vegetables.

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Cold storages protect the quality, freshness, colour and weight of red chilli and other produces as it was earlier. In addition, offers remunerative prices to farmers as well as affordable prices to consumers. Thus, cold storages in the study area have been playing such a vital role in the economic development has been primarily due to a very conducive environment for nurturing entrepreneurship. In spite of this, the cold storage users are confronted with several problems, the study on cold storage users perception has not been conducted so far and it remained as an unexplored area. Therefore, it is felt that there is a greater need to analyse the perception of cold storages users.

OBJECTIVES

1. To study the demographic profile of the cold storage users
2. To analyse the cold storage users' perception towards the cold storage facilities.

SCOPE OF THE STUDY

Due to the time and finance constraint the study has covered the cold storage users of Haveri district only.

RESEARCH METHODOLOGY

The list of users is collected from the cold storages on the basis on convenience sampling. Convenience sampling is a non-probability sampling technique where the sample user is selected according to the convenient accessibility and proximity to the researcher. Cold storage users in the study area consisted of farmers and businessmen. From each cold storage twenty users have been selected for analysing their perception towards cold storages. Thus, from all cold storages 520 sample respondents were interviewed. Out of this 520 sample respondents 260 are farmers and 260 are businessmen.

DEMOGRAPHICPROFILE OF THE SAMPLE USERS

The data relating to the demographic profile of the sample users are collected and analysed as follows.

Age of the Sample Users:

Age as an important demographic variable not only determines an Individual's physical and mental maturity but also depicts his or her life experiences.

Table No: 1
Age of the Users of Cold Storages

| Age | No. of Users | Percent |
|--------------|--------------|------------|
| Below 30 | 121 | 23.30 |
| 30 To 40 | 175 | 33.70 |
| 40 To 50 | 113 | 21.70 |
| 50 To 60 | 58 | 11.20 |
| Above 60 | 53 | 10.20 |
| Total | 520 | 100 |

Source: Field Survey

Table No: 1 reveals that, majority (33.70%) of the respondents are belongs to the age group of 30 to 40, followed by 23.30% in the age group below 30, 21.70% in the age group of 40 to 50 and the like. The least percentage (10.20%) of respondents lie in the age group of above 60.

Area of Residence:

Area of residence indicates the places where the respondents are living. Table No: 2 reports that, notably highest(45.80%) number of respondents are from semi-urban, followed by 42.81% from rural. Least number (12.10%) of respondents are belongs to urban area.

Table No: 2
Area of Residence

| Area | Frequency | Percent |
|--------------|------------|------------|
| Rural | 219 | 42.1 |
| Semi-Urban | 238 | 45.8 |
| Urban | 63 | 12.1 |
| Total | 520 | 100 |

Source: Field Survey

Educational Qualification :

Education plays a vital role in the Socio – economic analysis as education provides in depth knowledge for evaluation and understanding of products and their uses.

Table No: 3
Educational Qualification

| Qualification | Frequency | Percent |
|---------------------|------------|------------|
| Illiterates | 28 | 5.4 |
| Up to SSLC | 198 | 38.1 |
| PUC | 129 | 24.8 |
| Graduates | 100 | 19.2 |
| Post Graduates | 37 | 7.1 |
| Professional Course | 28 | 5.4 |
| Total | 520 | 100 |

Source: Field Survey

From the Table No: 3 it is clear that, maximum(38.4%) number of users are belongs Up to SSLC, followed by 24.80% fall into PUC, 19.20% fit into Graduation, and 7.1% users exist in Post-Graduation. Remaining users are equally scattered among Illiterates and Professional Course viz, 5.4% belongs to Illiterates and another 5.4% exist in Professional Course.

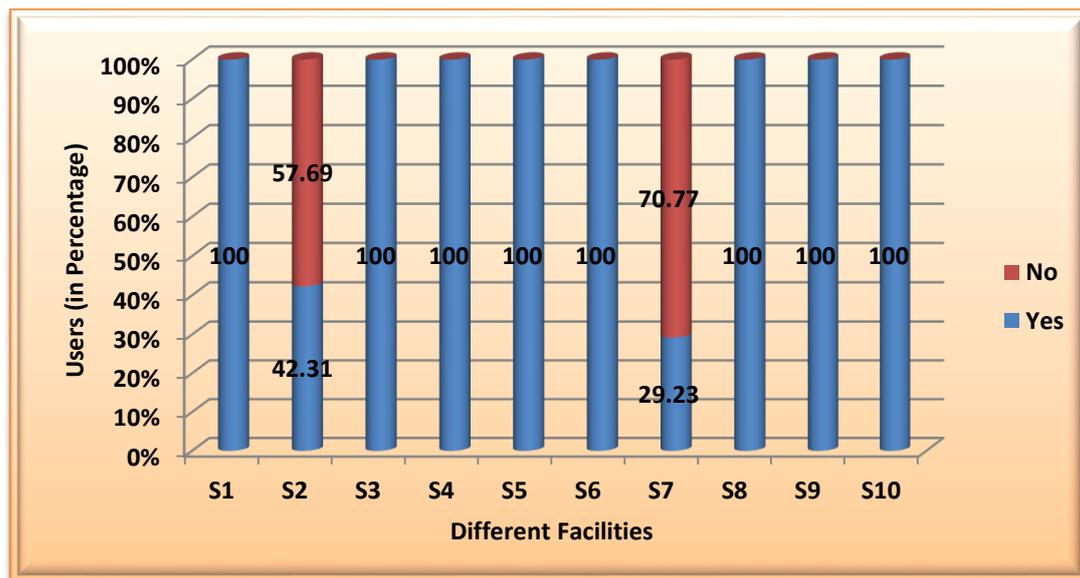
In order to analyse the users' perception towards cold storages function, it is essential to study about the different kind of facilities that are utilizing by the users.

PERCEPTION TOWARDS DIFFERENT FACILITIES

On the basis of function of selected cold storages researcher has identified 10 different types of facilities/services that, the entrepreneurs are providing to users. For the purpose of presentation of facilities in chart the facilities are coded as below;

- S1: Sufficient Cold Storage Space
- S2: Advance Booking Facility
- S3: Transportation/ Porter Facilities
- S4: Temperature Maintenance
- S5: Intimation of Moisture of Products
- S6: Credit Facility
- S7: Loan Facility on Products Stored
- S8: Insurance Coverage
- S9: Customer Care
- S10: Maintenance of Quality of Products

Chart No: 1
Utilisation of Different Facilities



Source: Field Survey

From Chart No: 1 it is clear that, except 2 types of facilities (S2 & S7) offering by the cold storages, all the sample users have utilized all 10 types of facilities. However, 42.31% of the sample users utilized Advance Booking Facility and only 29.23% of sample users used Loan Facility on Products Stored.

Further, to study the perception about all these 10 facilities, researcher used five point Likert Scale with 5 ratings. 5 ratings are 1-Very Dissatisfied, 2- Dissatisfied, 3- Neither satisfied nor dissatisfied, 4- Satisfied and 5-Very Satisfied. Ratings for each facility is collected and analysed. Table no: 4 describes the satisfaction level of the users towards the different facilities both in number and as well as in percentage.

S1: Sufficient Cold Storage Space: It speaks about whether users availed the desire cold storage space as and when they required or not. From the Table No:4 it is clear that highest(54.03%) number of the sample users have satisfied with the cold storage space provided by the entrepreneurs. 3.85% of the users have opined highly dissatisfied and 6.54% of the users have felt dissatisfied, because, these users might have experienced shortage of cold storage space during the seasonal time.

S2: Advance Booking Facility: Due to the uncertainty of availing the required cold storage space, some users avail the facility of advance booking. Here, users book certain storage space for a certain charges per bag. If users made booking of storage space, even in seasonal time also the entrepreneurs offer service at the rate at which they have made booking. However, out of 520 users, only 220 users have utilized the advance booking facilities. In Table No: 4, the corresponding row shows that, among 220 users, majority (54.55%) of users have satisfied and 18.18% of users have felt highly satisfied. only 5.45% of the users have opined that they highly dissatisfied. From this it is inferred that most of the users have enjoyed sufficient cold storage space from selected entrepreneurs.

S3: Transportation and Porter Facility: Selected entrepreneurs provide transportation facility to bring products from users' place to cold storage for which the charges are to be paid by the user. Unloading and loading facility for the users' products is also provided by the porters of the cold storages. With respect to the transportation and porter facility in the Table No: 4 it is reported that, majority(53.85%) of users are lie in satisfied and 13.46% of the users are highly satisfied. 23.08%, 5.38% and 4.23% are moderate, dissatisfied and highly dissatisfied due to the scarcity of the porters in the seasonal period.

Table No: 4
Users' Perception towards Different Facilities

| Facilities | HD | D | M | S | HS | Total |
|---|--------|---------|---------|---------|---------|----------|
| S1: Sufficient Cold Storage Space | 20 | 34 | 78 | 281 | 107 | 520 |
| | (3.85) | (6.54) | (15.00) | (54.03) | (20.58) | (100.00) |
| S2: Advance Booking Facility | 12 | 11 | 37 | 120 | 40 | 220 |
| | (5.45) | (5.00) | (16.82) | (54.55) | (18.18) | (100.00) |
| S3: Transportation/ Porter Facilities | 22 | 28 | 120 | 280 | 70 | 520 |
| | (4.23) | (5.38) | (23.08) | (53.85) | (13.46) | (100.00) |
| S4: Temperature Maintenance | 10 | 13 | 65 | 294 | 138 | 520 |
| | (1.92) | (2.50) | (12.50) | (56.54) | (26.54) | (100.00) |
| S5: Intimation of Moisture of Products | 25 | 9 | 117 | 228 | 141 | 520 |
| | (4.81) | (1.73) | (22.50) | (43.84) | (27.12) | (100.00) |
| S6: Credit Facility | 15 | 41 | 70 | 288 | 106 | 520 |
| | (2.88) | (7.88) | (13.46) | (55.40) | (20.38) | (100.00) |
| S7: Loan Facility on Products Stored | 11 | 31 | 10 | 92 | 8 | 152 |
| | (7.24) | (20.39) | (6.58) | (60.53) | (5.26) | (100.00) |
| S8: Insurance Coverage | 9 | 5 | 135 | 203 | 168 | 520 |
| | (1.73) | (0.96) | (25.96) | (39.04) | (32.31) | (100.00) |
| S9: Customer Care | 6 | 11 | 60 | 300 | 143 | 520 |
| | (1.15) | (2.12) | (11.54) | (57.69) | (27.50) | (100.00) |
| S10: Maintenance of Quality of Products | 2 | 6 | 52 | 227 | 233 | 520 |
| | (0.38) | (1.15) | (10.00) | (43.65) | (44.82) | (100.00) |

Source: Field Survey

Note: Figures in the Parentheses are in Percentage

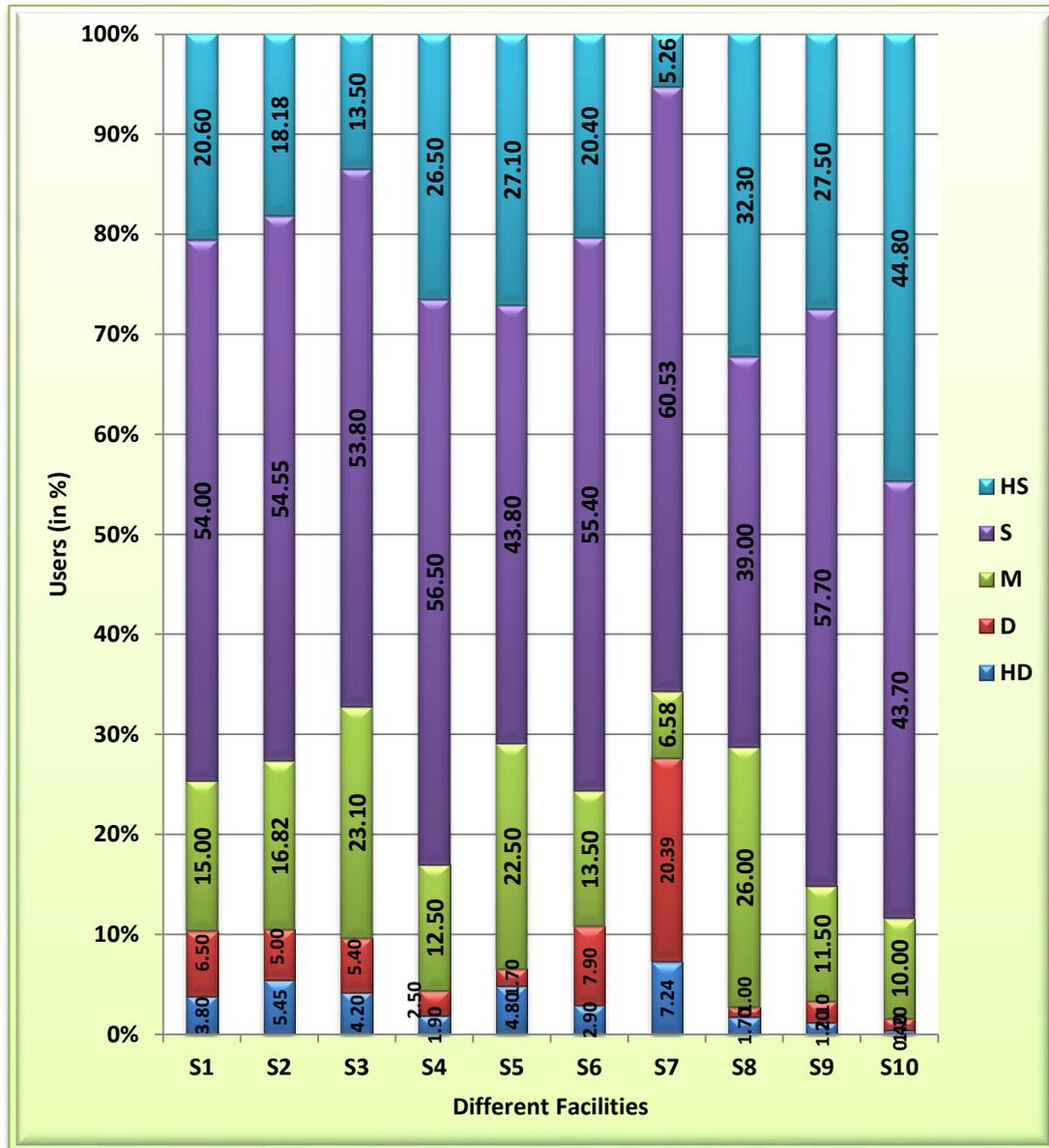
S4: Temperature Maintenance: Preservation of the quality, freshness, colour and also weight of the products stored in cold storage is purely on the proper maintenance of temperature inside the cold storages. In general cold storages maintain 4° to 8° temperature. Commonly during the day time 4° to 6° and night 7° to 8° temperature is maintained by the entrepreneurs. In respect of this indicator, Table No: 4 shows that, highest (56.54%) number of users felt satisfied. Least(1.92%) number of users have opined that they are highly dissatisfied. Hence, it is inferred that, majority of the users are satisfied about temperature maintenance.

S5: Intimation About Moisture of Product: If products with more moisture are stored in the cold storage, then it has a greater chance of fungus in the products stored. Standard moisture level for chilli is 13%. If moisture is too low, red chilli will break and chilli will become many pieces. Hence, it is imperative to intimate about the extent of moisture in the products to the users. Products with more moisture are kept

for sunlight for certain period to reduce the moisture, if users accept. But, the cost of the same is to be borne by users. With respect to this factor, Chart No:2 describes that, majority(43.84%) of the users satisfied, followed by highly satisfied, moderate and the like. 29.04% of the users are moderate and below. These users, felt that entrepreneurs do not intimate about the moisture due to the fear that, if product loss happens users may transfers its responsibility on them.

Chart No: 2
Perception towards Different Facilities

Source: Field Survey



S6: Credit Facility:Users availed credit facility from the entrepreneurs. Corresponding bar in the Chart No:2, it is affirmed that, majority (55.40%) of the user respondents belongs to satisfied about credit facility, followed by highly satisfied, moderate and the like. Only 2.88% users have opined highly dissatisfied.

S7: Loan Facility on Products Stored:If users need loan on the products stored in the cold storage, they can avail loan by providing the bond issued by the cold storages. However, after the repayment of loan only users can take back their products stored. Even sometime entrepreneurs sell their products in the market by showing sample to the traders, if users permit entrepreneurs. By receiving advance from such

traders they repay loan, release products to trader, recover their rent and remaining amount will be handed over to the users. However, this will be depended on the level of relationship between the user and entrepreneur. With respect to loan facility on products stored, Chart No: 1 explains that, majority(60.53%) of the users who availed the loan felt satisfied. However, 20.39% of the users have belongs to dissatisfied due to the sanction of lessor amount of loan, high interest rate, delay in sanction and repayment is to be made before delivery of products from cold storage.

S8: Insurance Coverage:Every bag of products stored in the cold storage is insured. However, the insurance charge is included in the service charge charging by the entrepreneurs. With respect to this indicator, chart No: 2 reported that, 71.35% of the users are satisfied and above. 25.96% of the users are moderate. It is inferred that, most of the users are satisfied and highly satisfied. Least number (0.96%) of users are dissatisfied.

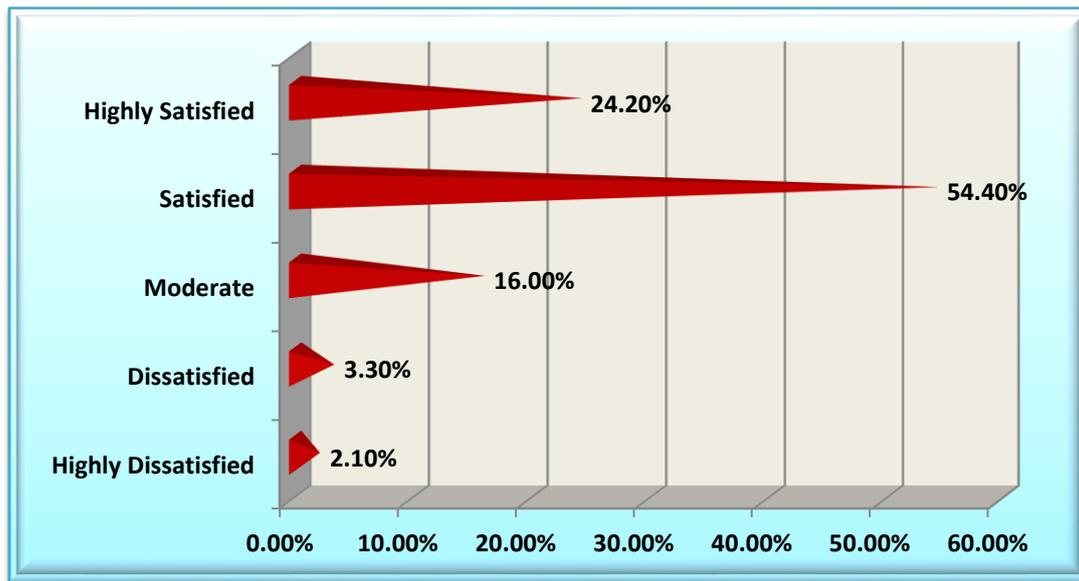
S9: Good Customer Care:Customer care is the process of taking care of customers to best ensure their satisfaction and delightful interaction with a business and its brand, goods and services. Entrepreneurs should take care of their customer. So that customer will purchase products/ services from the same entrepreneur. The good customer care bar represented in the Chart No: 2, revealed that, more than 50% of users are satisfied, followed by 27.50% highly satisfied. Only 1.15% of users have felt highly dissatisfied. Hence, it is inferred that, most of the users are satisfied by the customer care by entrepreneurs.

S10: Maintenance Of Quality Of Your Products: It means retaining the colour, quality, freshness, and also weight of the products stored in the cold storages. With respect to this indicator, Chart No: 2 reveals that, highest number (44.82%) of the users are highly satisfied, followed by 43.65% satisfied users. Only 0.38% of the users are highly dissatisfied. Hence it is concluded that, majority of the selected entrepreneurs have maintained quality of customers' products.

OVERALL PERCEPTION OF THE USERS

Finally, altogether responses from all the users were collected with respect to the overall perception about the cold storage function, which is represented in the Chart No: 3.

Chart No: 3
Overall Perception of the Users



Source: Field Survey

From the chart No: 3 it is revealed that, among the 520 user respondents, majority(54.40%) of the users are satisfied, 24.20% of the users are highly satisfied and 16.00% of users are moderate. However, it is quite common that no entrepreneur can satisfy all his customers in all respect. Likewise, least number(5.40%) of users are dissatisfied and below dissatisfied. It has mean score of 3.95. In total, maximum users have good opinion about the cold storage function. Hence it is concluded that, most of the users are happy with type and kind of services that are providing by the selected entrepreneurs.

CONCLUSION

Researcher used five point Likert Scale with 5 ratings to study the users' perception about all the 10 kind of facilities of the cold storages of the study area. Ratings for each facility has been collected, analysed and found almost good responses for various facilities that are providing by the cold storages of the study area. Among them 1) with respect to Sufficient Cold Storage Space, highest (54%) number of the sample users have satisfied. However 10.30% of the users are fit into dissatisfied and below dissatisfied due to shortage of cold storage space during the seasonal time only, 2) With regard to Insurance, majority (71.30%) of the users are satisfied and above satisfied ranks, 3) with reference to good customer care, 85.20% of the selected users have opined they are satisfied and above satisfied ranks, 4) In respect of Maintenance of Quality of Your Products, 44.80% of the users are highly satisfied, followed by 43.70% satisfied users. Even with respect to overall perception 78.60% of the users have opined as they are satisfied and highly satisfied. Thus, it is evident that, most of the users are happy with the kind of service that the entrepreneurs are providing. Hence, it is concluded that majority of the selected cold storage users have been satisfied by the kind of services that the cold storages of the study are have been providing.

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