

## An Analysis of Carnation Cut Flower Market in Kathmandu Valley, Nepal

Pawan Singh Bhandari<sup>1</sup>

Thakur Bhattarai<sup>2</sup>

### *Abstract*

*Carnation is an important cut flower commercially traded in Kathmandu Valley. It has high demand of floriculture market in the Kathmandu Valley due to its physical characteristics and also its suitability to be used singly or in combination with other flowers in different floriculture products. So, the study has attempted to analyze the market of carnation cut flower in Kathmandu Valley. Data were collected from sample of carnation producers, wholesalers, retailers, and consumers of the Kathmandu Valley. Simple random sampling technique was employed to select the respondents. Information from the respondents was generated through semi-structured interview schedule. Key informants were also interviewed for in-depth and related information. Data collected through personal interview and secondary sources was analyzed by applying descriptive statistical tools. Data analysis focused mainly on the market structure, conduct of marketing agents, and performance of carnation cut flower in the market in terms of returns to the marketing agents, present problems in marketing, and future prospects of carnation in Kathmandu Valley. Findings reveal that the market structure was well integrated and the conduct of the marketing actors was so far competitive to the large extent. The performance of the carnation cut flower in terms of price and profit seems satisfactory and sustainable. However, there were ample areas of improvements in the marketing system. Given the high degree of demand in the valley and increasing trend of imports of carnation cut flowers from other districts of the country as well as from foreign countries, concerted efforts must be made to reverse the situation and make the Valley self-reliant in fulfilling its demand alongside exporting to other districts and countries in the future.*

**Keywords:** *Carnation, Cut flower, Market, Price, Returns*

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- 1 **Mr. Bhandari** is a Senior Agriculture Extension Officer, Agriculture Development Directorate, Bagmati Province. Email: [pawansinghbhandari1@gmail.com](mailto:pawansinghbhandari1@gmail.com)
  - 2 **Dr. Bhattari** is an Associate Professor, Department of Economics, Patan Multiple Campus, Tribhuvan University.

## Introduction

Carnation (*Dianthus Caryophyllus* L.) is one of the most popular commercial cut flowers grown in the world and ranks next only to rose in the world's floriculture trade (Hamidimoghadam et al., 2014; Jawaharlal et al., nd; and Anonymous, 2019). Most carnations are half-hardy herbaceous perennials; however, there are some annual varieties. Native species only flower in the spring due to increasing day length (photoperiod) and temperature. However, carnation can be cultivated as perennial cut flower in greenhouses (Asadi et al., 2014). Carnations grow 18" to 24" tall and produce solitary, terminally formed flowers, the petals of which are broad with frilled margins. Carnations are grouped into two major classes 'Standard' and 'Spray'. The standard type produces larger blooms on longer flower stalks and the spray type produces many flowers of smaller size with weaker stems (Jose et al., 2017). There are over 300 species of carnations and hundreds more of hybrid varieties. Though each hybrid comes in a different color, white, pink and red are the most common ones. Carnations can be planted in flowerbeds, borders, rock gardens and even containers like pots. Carnation is one of the important cut flowers due to its excellent keeping quality, wide range of colour and form, ability to withstand long distance transportation and remarkably ability to rehydrate after continuous shipping (FAN, 2015; Magar, 2019; Manikandan & Deshmukh, 2018).

Carnation is an important commercial cut flower in Nepal. It has been emerging as the most potential enterprise for the income in the urban areas especially capital city Kathmandu. It is said that carnation has a huge potential to fetch increased domestic demand as well as export market opportunity. But, despite the huge potential of development of carnation cut flower in the country, the competitiveness is very low (Magar, 2019). As opined by Magar, in order to increase the competitiveness, coordination among the marketing chain actors must be developed. Their activities must be synchronized to satisfy the consumers maximally and optimize the shares from the returns from the business to all actors.

Systematic research studies in the carnation cut flower is still lacking in Nepal to provide suitable findings from the scientific study to all marketing actors regarding necessary areas of improvements to increase the competitiveness of the sector not just for the domestic market but also for the export market. Such studies will be utmost important to devise more competitive business strategy by the relevant actors and stakeholders. In this context, this study was carried out with the objective to examine the Carnation cut flower market in Kathmandu Valley and the findings is expected to lead to suitable and effective interventions in the area of carnation cut flower development.

## Methodology

The research design set for this study is a cross-section study using a survey of representative samples from among the producers, traders, and consumers of the carnation cut flower market in Kathmandu Valley. The study was undertaken in February, 2020. Both primary and secondary data were used for this study. Primary data was

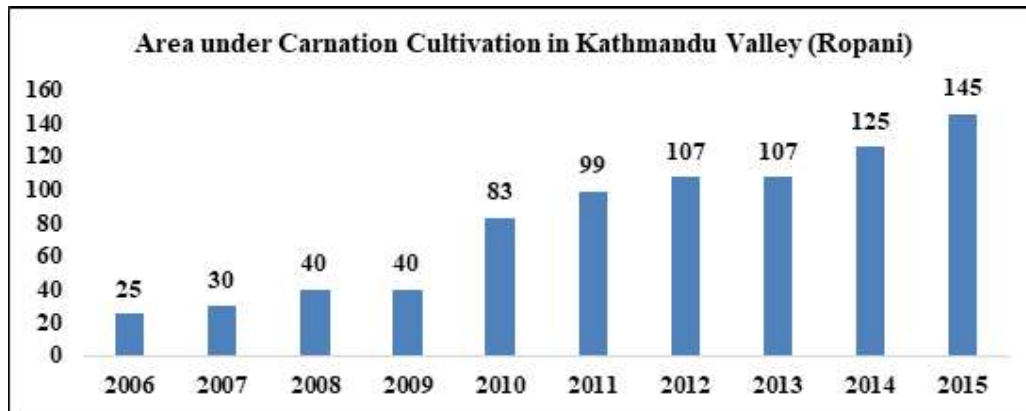
gathered from field survey through interview with the producers, traders, consumers, and knowledgeable key informants of the carnation cut flower using semi-structured interview schedule. The primary data was complemented using secondary information obtained from the official statistics of Floriculture Association Nepal. For the collection of primary data, a sample of 15 carnation producers, 3 wholesalers, 15 retailers, and 30 consumers representing the Kathmandu, Bhaktapur, and Lalitpur districts were taken using random sampling technique. Both quantitative and qualitative techniques were used for data analysis. The data was analyzed by applying descriptive statistical tools.

## Results and Analysis

### *Area under Carnation Production in Kathmandu Valley*

The growth in the area under carnation cultivation in the Kathmandu Valley between 2006 and 2015 is presented in Figure 1. Data reveals that there has been gradual growth in the area of carnation cultivation in Kathmandu Valley. This is a very interesting and encouraging data because the increasing trend of area under carnation cultivation reveals that there is high demand of carnation cut flower in the valley.

**Figure 1: Area under Carnation Cultivation in Kathmandu Valley**

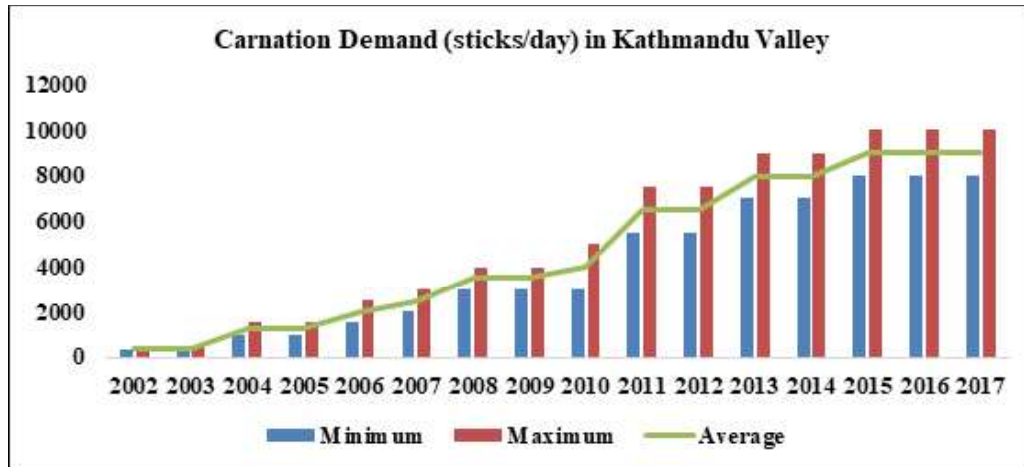


Source: FAN, 2020.

### *Demand for Carnation in the Kathmandu Valley*

The demand for carnation in Kathmandu Valley between the years 2002 and 2017 is presented in Figure 2. Data shows that there is a constant growth of demand owing to the increasing urbanization in the Valley. The increasing trend of minimum, maximum and average demand is a positive signal for the producers and traders who are involved in the production and marketing of carnation.

**Figure 2: Demand of Carnation in Kathmandu Valley**



Source: FAN, 2020.

### ***Marketing Channel of Carnation Cut Flower***

Marketing channel is the route through which the commodity is transferred from the production point to the consumption point. Local production of carnation was not sufficient to meet the total demand of Kathmandu Valley. Thus, carnation produced in other parts of the country like Biratnagar, Dharan, Chitwan, Jhapa, Nawalparasi, Dhading, Makawanpur, and Janakpur etc. were supplied to Kathmandu Valley to meet the demand. Besides, carnation were also imported from foreign countries especially from India. The following marketing channels were found in the Kathmandu Valley carnation cut flower marketing:

#### **(a) Domestic Carnation Cut-Flower:**

Channel-1: Producer → Wholesaler → Retailer → Consumer

Channel-2: Producer → Retailer → Consumer

Channel-3: Producer → Consumer

#### **(b) Foreign Carnation Cut-Flower:**

Channel -1: Foreign Producer → Foreign Exporter → Wholesaler → Retailer → Consumer

Channel -2: Foreign Producer → Foreign Exporter → Retailer → Consumer

Imports of carnation cut flowers were done both by wholesalers and retailers. But imports were done only during winter season when domestic supply was low and there was high demand in the market. The prices also went high when there was high demand.

Otherwise, during normal season, the prices of imported carnation were generally higher than the domestically produced carnation so there was no import.

### ***Percent of Products Going Through Particular Channel***

The percent of carnation cut flower products going through particular marketing channel and the relative share of the marketing channel in the total product flow in the Kathmandu Valley is presented in Table 1.

**Table 1: Relative Share of Different Marketing Channels**

Marketing Channel	Relative Share
Producers-Wholesaler-Retailers-Consumers	98 %
Producers- Retailers-Consumers	1 %
Producers → Consumers	1 %

Source: Field survey, 2020.

Almost all the carnation producers sold their products mainly to the wholesalers and very less to the individual customers and retailers. Channel -1 in domestically produced carnation is the dominant marketing channel in the Kathmandu Valley. Among the consumers whom carnation was sold 50 percent were individual consumers and 50 percent were institutional e.g. offices, hotels, catering services.

### ***Reasons for the Selection of Particular Marketing Channel***

The main reasons for selecting the particular channel by the marketing actors are presented in Table 2, 3 and 4.

#### **Channel - 1: Producers-Wholesaler-Retailers-Consumers**

The main reasons for selecting this marketing channel were basically related to the advantages of quantity, quality and time related variables compared to other marketing channels (Table 2).

**Table 2: Reasons for Selecting Extended Marketing Channels**

Channel Actors	Reasons
Producers	Ensured market, assured price, free availability of market related information
Wholesalers	Timely availability, quality, after sales payment, no risks involved
Retailers	Timely availability, sufficient quantity and quality product, free marketing information provided by the wholesaler
Consumers	Timely availability, product variety, sufficient quantity and quality product, price fixed by bargaining, can fix price on contractual agreement by large and regular buyers

Source: Field survey, 2020.

### Channel - 2: Producers – Retailers - Consumers

The main reasons for selecting this marketing channel were basically related to the advantages of price related variables compared to other marketing channels (Table 3).

**Table 3: Reasons for Selecting Intermediate Marketing Channels**

Channel Actors	Reasons
Producers	Less transportation charges, slightly higher price received compared to wholesalers, cash payment.
Retailers	Act as a buffer during shortage in the wholesaler, retain regular customers, higher price.
Consumers	Timely availability, product variety, sufficient quantity and quality product, price fixed by bargaining and on contractual agreement by large and regular buyers.

Source: Field survey, 2020.

### Channel - 3: Producers → Consumers

The main reasons for selecting this marketing channel were basically related to the advantages of easiness in purchasing and selling compared to other marketing channels as shown in Table 4.

**Table 4: Reasons for Selecting Direct Marketing Channels**

Channel Actors	Reasons
Producers	Fulfillment of local consumers demand, goodwill in the society, high price, lower cost of processing and marketing, low post harvest loss
Consumers	Minimal cost of buying, saving of time and effort for buying, flexibility in quantity, quality product and low price

Source: Field survey, 2020.

### *Means of Transportation of Carnation Cut Flower*

Various means of transportation were being used to transport the carnation cut flower in each stages of the marketing chain in the Kathmandu Valley. Smaller quantities of carnation were being transported in private bike, scooty, car, taxi, etc. in a relatively short distance. For large quantities handling and for relatively far distances, van, pick-up, bus, etc. were used as the transportation means. Carnations imported from India were generally transported through bus and those brought from countries other than India were being transported through airplane. The detail of the means of transportation of carnation cut flower in Kathmandu is presented in Table 5.

**Table 5: Means of Transportation of Carnation Cut Flower**

Marketing Channel	Means of Transport
Producer-Wholesaler	Van, Car, Bus, Bike, Taxi, Pick-up
Foreign country-Wholesaler/ retailer (imported)	Bus (India) Airplane (Countries other than India)
Wholesaler-Retailer	Bike, Scooty, Van, Cycle
Retailer-Consumer	Bike, Scooty, Van, Car, Bus

Source: Field survey, 2020.

### *Method of Marketing Information Flow within the Marketing Channel*

Major marketing related information exchanged between the actors of the carnation marketing channel were price, quantity, and quality of flowers demanded, flower stock, and flower sales record. This marketing information was almost exchanged among the immediate channel actors only. The most common methods of marketing information flow in the carnation marketing channel in Kathmandu Valley are presented in Table 6. Besides, some enthusiasts' producers, wholesalers, retailers, and consumers also sought marketing related information from the publications and websites of different related organizations, e.g. Ministry of Agriculture and Livestock Development, Floriculture Association Nepal, etc.

**Table 6: Method of Market Information Flow in the Marketing Channels**

Type of Information	Marketing Channels		
	Producers-Wholesalers	Wholesalers-Retailers	Retailer-Consumers
Price	Face-to-Face interaction, telephone calls	Face-to-Face interaction, telephone calls	Face-to-Face interaction
Demand (quantity)	Face-to-Face interaction, telephone calls	Face-to-Face interaction, telephone calls	Face-to-Face interaction
Quality	Face-to-Face interaction, telephone calls	Face-to-Face interaction, telephone calls	Face-to-Face interaction

Source: Field survey, 2020.

### **Mode of Payments for the Purchased Carnation Cut Flower**

Different mode of payment practiced by the marketing channel actors to pay for the purchased carnation cut flowers or its value-added products is presented in the Table-7.



**Table 7: Mode of Payment for Carnation Cut Flower**

Transactions Between Actors	Mode of Payment	Duration of Payment
Producer-Wholesaler	Cash, Cheques, Bank	Credit
Importer-Wholesaler/Retailer	Cash	Pre-payment
Wholesalers- Retailers	Cash	Instant cash and credit
Producer-Retailer	Cash	Instant cash and credit
Producer-Consumer	Cash	Cash
Retailer-Consumer	Cash	Instant cash and credit

Source: Field survey, 2020.

Transaction between the producer and wholesaler took place in cash, cheques, and bank deposits. The producers receive the cash from the wholesaler after the product of the particular producer gets sold. Each wholesaler kept separate account of the producer selling carnation to them. In the record, the number of flowers supplied by the particular producer was recorded. The producers were not paid on the day they brought the product. Instead they were paid either monthly or fortnightly. Fortnightly payments were more popular. Some wholesalers provided cash payments to the producers while some provided cheques and some directly deposited the amount in the bank account provided by producers. All transactions between other actors took place mostly in instant cash payment. Transactions between the retailer and the consumers occurred mostly in instant cash payment. However, for few regular customers and institutional buyers, there was either contract selling, the payment schedule was fixed in the contract or they would agree to sell in credit.

### *Market Competition in Carnation Cut Flower Market*

Market competition in the carnation cut flower market of Kathmandu Valley was studied during the study which is shown in Table 8.

**Table 8: Market Competition in Carnation Cut Flower Market**

Marketing Chain	Normal Competition (%)	High Competition (%)
Producers level	15 (100)	-
Wholesalers level	3 (100)	-
Retailers level	13 (87)	2 (13)
<b>Total</b>	<b>31 (94)</b>	<b>2 (6)</b>

Source: Field survey, 2020.

Majority (94 %) of the producers and traders replied that there was normal competition in the carnation cut flower market. Only at the retailer's level, 13 percent of the retailer's replied that the market was highly competitive. The competitive environment was further explored at the producers, wholesalers and retailers level and the findings are presented in Table 9.



**Table 9: Analysis of Market Competition in Carnation Cut Flower**

Marketing Chain	Major Competitors	Basis of Competition	Strategies to Beat the Competition
Producers level	Domestic producers	Quality production	Quality production, timely supply
Wholesalers level	Other wholesalers	Price and product quality	Relationship management with producers, price changes, competition in other cut flowers
Retailers level	Other retailers	Price, quality of product, product differentiation, attractiveness and promotion	Price flexibility, product differentiation, providing quality products, attractive display of product, timely supply

Source: Field survey, 2020.

### *Marketing Cost of Carnation Cut Flower*

Marketing cost refers to those costs which are incurred to perform various marketing activities involved in the movement of goods from producers to consumers. The detail breakdown of the marketing cost per unit of carnation cut flower incurred by the producers and traders in Kathmandu Valley is presented in Table 10.

**Table 10: Marketing Cost of Carnation Cut Flower**

Cost Items	Producers	Wholesalers	Retailers	Total (%)
Labour	0.4	0.4	1.0	1.8 (23)
Transportation	0.8	-	1.0	1.8 (23)
Packaging materials	0.2	0.1	1.5	1.8 (23)
Taxes and other expenses	0.2	0.3	0.5	1.0 (13)
Transportation loss and unsold flower wastage	0.4	-	0.5	0.9 (11)
Shop rent	-	0.2	0.5	0.7 (9)
<b>Total</b>	<b>2.0</b>	<b>1.0</b>	<b>5.0</b>	<b>8.0 (100)</b>

Source: Field survey, 2020.

The highest cost was incurred in the labour expenses (sorting, grading, packaging, loading, unloading) and transportation costs in the whole marketing chain, followed by packaging material costs, taxes and other operating costs, losses during transportation and wastage of unsold flowers and finally the shop rent.

### *Marketing Margin of Carnation Cut Flower*

Marketing margin here denotes the difference between sales price and purchase price per unit of cut flower. The marketing margin of carnation is presented in Table-11.

**Table 11: Marketing Margin of Carnation Cut Flower**

Particulars	Producers	Wholesalers	Retailers
Average Production Cost/ Purchase price (A)	6	10	15
Average sales price (B)	10	15	25
Gross margin (B-A)	4	5	10
Marketing cost (C)	2	1	5
Profit per stick [(B - A) - C] (Rs.)	<b>2</b>	<b>4</b>	<b>5</b>

Source: Field survey, 2020.

Total marketing margin of carnation in the common marketing chain, i.e. producer-wholesaler-retailer-consumer was Rs. 19 per stick. Marketing margin was highest at the retailer's level which was Rs. 10 per stick followed by Rs. 5 at the wholesaler's level and Rs. 4 at the producer's level. This clearly shows that the producers of carnation cut flower made little profit compared to the traders.

### *Seasonal Pattern of Supply of Carnation Cut Flower*

Carnation cut flower even being a perennial crop, the production generally fluctuated seasonally due to natural conditions of day length, sunshine hours, average temperature, humidity and moisture, etc. This fluctuation in the climatic condition had great bearings on the supply of the carnation in the market. The seasonal fluctuation in the production of carnation cut flower is presented in Table 12.

**Table 12: Seasonal Pattern of Carnation Cut Flower Supply (Sticks/day/Ropani)**

Production Season	Months	Quantity Supplied by Individual Producer
High	Baishak, Jestha, Ashad, Chaitra	300-400
Low	Mangsir, Poush, Magh	100-200
Normal	Shrawan, Bhadra, Asoj, Kartik, Falgun	200-300

Source: Field survey, 2020.

### *Seasonal Pattern of Demand for Carnation Cut Flower*

The demand of carnation cut flower was not uniform. It greatly fluctuated during different months of a year. The demand of carnation during the peak season, off-season and normal season is presented in Table 13.

**Table 13: Seasonal Pattern of Demand for Carnation Cut Flower (Sticks / day)**

Seasonal Demand	Months	Demand Felt by Individual Producers	Demand Felt by Individual Wholesalers	Demand Felt by Individual Retailers
Peak	Mangsir, Magh, Falgun, Baishak, Ashad	500-750	4,000-5,000	200-300
Off-season	Bhadra, Asoj, Poush, Chaitra	50-100	1,000-1,500	90-100
Normal	Jestha, Shrawan, Kartik	100-200	3,000	100-200

Source: Field survey, 2020.

The reason for high demand during peak season was basically due to Mother's day, Father's day, Wedding ceremonies, New Year, Valentine's day, Christmas, Annual function of the Office, Opening ceremony of businesses houses, and other major festivals. Oftentimes, producers cannot meet the demand during peak season, and carnation was imported from India. While in many other occasions when the demand was low during the off-season, producers had to incur huge losses due to low prices and unsold flowers.

#### *Seasonal Pattern of Carnation Cut Flower Price*

The seasonal pattern of carnation cut flower price experienced by the producers and traders are presented in Table 14.

**Table 14: Seasonal Pattern of Carnation Cut Flower Price (Rs. per stick)**

Price Trend	Months	Producers	Wholesalers	Retailers
Maximum	Mangsir, Magh, Falgun	18	24	30
Minimum	Shrawan, Bhadra, Poush, Chaitra	6	7	15
Average	Baishak, Jestha, Ashad, Asoj, Kartik	10	15	25

Source: Field survey, 2020.

The reasons for the highest price received during the months of Mangsir, Magh and Falgun replied by the respondents were in these months maximum of wedding ceremonies, socio-cultural occasions, Valentine's Day, etc. occurred. The reasons for the lowest price received during the month of Shrawan, Bhadra, Poush and Chaitra was because in these months the demand was very low and during low demand the prices tend to be low. Thus, price of carnation cut flower in Kathmandu Valley was basically determined based on season, demand and supply situation in the market.

### *Trend of Carnation Cut Flower Price*

The perception of the trend of carnation cut flower price over the years in the market experienced by the producers, traders and consumers are presented in Table 15.

**Table 15: Trend of Carnation Cut Flower Price**

<b>Marketing Actors</b>	<b>Increasing (%)</b>	<b>Fluctuating (%)</b>
Producer	11 (73)	4 (27)
Wholesaler	3 (100)	-
Retailer	11 (73)	4 (27)
Consumer	26 (87)	4 (13)
<b>Total</b>	<b>51 (81)</b>	<b>12 (19)</b>

Source: Field Survey, 2020.

The majority (81 %) of the respondents replied to increasing trend of the price and the remaining 19 percent replied fluctuating trend in the price. No respondents reported constant and decreasing trend of the price. The reasons for the fluctuating trend of price were chiefly the mismatch between the supply and demand. No respondent replied artificial price hike or monopoly like pricing or similar other malpractices for the increasing and fluctuating trend of price which is a good remark showing healthy business environment.

### *Pricing Mechanism of Carnation Cut Flower*

The basis of sales price fixation of carnation in the market is presented in Table 16. The price received by the producers was fixed by the wholesaler (buyer) and they (sellers) were just the price takers. The producers would actually know the price of their carnation cut flower only after they get sold from the wholesaler. Similarly, while selling the carnation to the retailers, the wholesalers fixed the price and the retailers were price takers. At the retailer's level, the pricing mechanism varied. Most of the transactions between the buyer (final consumer) and the seller (retailer) occurred by bargaining of the price. Bargaining were mainly based on type of product, number of flowers used and quality of flowers. The remaining transactions were basically the mix of fixed, bargaining and contractual selling. In case of contractual selling arrangements, the price of the product was fixed annually and the retailer had some flexibility over the number and type of flowers being used in the product (bouquet, basket) in the situations when price of the carnation fluctuated highly during certain months of the year.

**Table 16: Pricing Mechanism of Carnation Cut Flower**

Marketing Actor	Pricing Mechanism			
	Fixed Price (%)	Bargaining (%)	Contractual Selling (%)	Other Selling Arrangements (%)
Producers	15 (100)	-	-	-
Wholesalers	-	-	5 (100)	-
Retailers	-	11 (73)	-	4 (27)
Consumers	3 (10)	27 (90)	-	-

Source: Field survey, 2020.

Due to the lack of regular and reliable information about the supply of carnation from the producers, the initial price of the carnation was determined only after it arrived at the wholesalers. The price of carnation sold by the wholesalers was determined by the overall demand and supply situation in the market. However, wholesalers sometimes do consider about competition among the other wholesalers and used to pay some premium price to the regular producers supplying high quality flowers during peak season of demand to retain the producers with them and gained the goodwill of the producers among the competitors. At the retailer's level, price of the carnation sold to the consumers were basically determined by the quality of flowers, attractiveness of the flower by mixing with other flowers, product differentiation (bouquet, basket) and number of flower used in making the product.

### *Problems in the Carnation Cut Flower Marketing*

The major problems in carnation cut flower marketing along with the rank assigned by the respondents are presented in Table 17.

**Table 17: Problems in Marketing of Carnation Cut Flower**

S.N.	Marketing Related Problems	High	Moderate	Low	No	Total	%	Rank
1	High post-harvest loss	24	19	4	16	63	75	I
2	Poor transportation facilities	24	14	7	18	63	71	II
3	Poor marketing information system	21	13	10	19	63	70	III
4	Fluctuating supply and demand	11	9	21	22	63	65	IV
5	Competitive market	15	4	12	32	63	49	V
6	Credit transactions	13	9	5	36	63	43	VI

Source: Field survey, 2020.

The major marketing related problems were high post-harvest loss of carnation due to poor availability of both on-farm and off-farm cold storage facilities, poor transportation

facilities (no cooling van available) to transport, highly perishable commodities like cut flower ultimately leading to high post-harvest loss, poor marketing information system, seasonal fluctuation in supply, demand leading to non-uniform price within a single year, large price variations from one retailer to another in the same area, high competition in the market especially during peak season of supply, and credit transactions especially at the producers level where they get paid from the wholesaler only when their product gets sold.

### *Prospects of Carnation Cut Flower Market*

The major prospects of carnation cut flower assumed by the respondents along with the rank they assigned to individual prospect are presented in Table 18.

**Table 18: Prospects of Carnation Cut Flower Market**

S.N.	Prospects of Marketing	High	Moderate	Low	No	Total	%	Rank
1	Increasing demand	30	9	13	11	63	83	I
2	Year-round demand	33	8	10	12	63	81	II
3	Huge demand supply gap	29	10	9	15	63	76	III
4	Increasing government support	25	13	9	16	63	75	IV
5	Possibility of year-round production	27	11	7	18	63	71	VI
6	High possibility of marketing outside the valley	8	6	4	45	63	29	VI

Source: Field survey, 2020.

Major prospects of carnation cut flower were increasing demand within the Kathmandu Valley year round demand of carnation. Even though relative size of the demand during different months of the year varied greatly, huge gap in the present supply and demand of carnation in the Kathmandu Valley. Because, the demand of Kathmandu Valley was being met from the supply from other districts of the country and also from neighboring countries, possibility of carnation production throughout the year in the high-tech plastic house under controlled environment, and high possibility of marketing of carnation produced in the Kathmandu Valley to nearby districts, and to the other major cities of the country.

### **Major Findings**

The structure of carnation cut flower market in Kathmandu Valley is well integrated. The marketing channel of the carnation cut flower in Kathmandu Valley was quite short compared to other agriculture commodities, and the major actors in the marketing chain were producers, wholesalers, retailers, and consumers. The means of transporting the carnation from the producer to consumer was still dominated by the conventional public

transport vehicles and no specialized transport system of carrying this delicate and high value flower was available in Kathmandu Valley.

The conduct of the market actors in the carnation cut flower market in the Kathmandu Valley was found fairly competitive with no monopoly regimes operating in the market at any levels. However, the marketing system was plagued with negligent use of the modern computerized and web based real time marketing information system and marketing actors still depend on traditional methods like face-to-face communication and telephone calls to convey important marketing information of price, demand, supply, and quality. The transactions of carnation cut flower among the marketing actors occurred mostly in cash and very less through formal banking channel and additionally producers were found suffering from delayed payments of cash from the wholesalers. The actors of the marketing channel were competing among themselves in the market in terms of price, quality, product differentiation, promotion and similar other areas.

The market performance of the carnation cut flower in the Kathmandu Valley was quite effectual. Return from the carnation cut flower marketing was quite lucrative. Returns from carnation business reveals that there is considerable share of returns for all actors in the marketing chain however, the share of producers does not commensurate with the efforts put by them in creating the value of the product compared to other actors in the marketing chain. There is distinct seasonal pattern of supply and demand of carnation in the Kathmandu Valley which does not match each other thus breeds the obvious phenomena of seasonal pattern of price fluctuation in the market. The trend of carnation price in Kathmandu Valley seems to be increasing and similar was the trend of production and marketing. The pricing mechanism of carnation varied along the marketing chain and the wholesaler was found dominant in price setting in the market. Major problems hindering the marketing of carnation cut flower were high post-harvest losses, poor transport facilities and marketing information system, price fluctuation and credit transactions. Alongside, these problems the development of carnation cut flower have many prospects due to the reasons like increasing trends of demand in the market, availability of the flower throughout the year, high unmet demand of the carnation in the market.

### **Conclusion**

This study was carried out to analyze the status of carnation cut flower marketing in Kathmandu Valley. The study presents strong evidence that Kathmandu Valley has huge potentiality of carnation cut flower business. Marketing of carnation has been in increasing trend despite various constraints. Major problems hindering for the slow growth of this sector are more technical rather than socio-cultural and political. These problems can be easily solved through coordinated efforts of public and private sector. Interventions to develop in this sector are needed in production, post-harvest processing and marketing stages. This calls for greater investments in production technologies, research and development activities in the production and post-harvest technologies and support for investments in marketing infrastructure.



The carnation marketing has stood itself as a profitable agribusiness as revealed by the positive sign and magnitude of the gross margin. Unlike other agricultural commodities, comparatively lower marketing margin has been seen in this sector but this can be justified in relation to the consumer's welfare and is also an indication of efficiency of the carnation cut flower marketers. The market system as such can be seen as dominated by the wholesalers to some degree but this can be easily eased by strong policy of the government to make the marketing system competitive and sustainable.

Carnation cut flower has the potential to emerge as an important sector in the agriculture economy of the Kathmandu Valley. The sector is not fully dependent on domestic production and therefore has to depend on imported carnation during certain periods of the year. In the Kathmandu Valley, the domestic market is small but gradually expanding. Thus, in the coming years meeting the demand from domestic supply requires a strong competitive and strategic production and marketing planning and strategy.

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