Chapter 7

Case Study

7.1 Case study: Divine Voyage Club (DVC)

To understand the integration between Six Sigma and marketing an empirical study is conducted with reference to marketing strategy of Surat, India based travelling company- Divine Voyage Club (DVC) (www.divinevoyageclub.com). Divine voyage club is the small travelling company acquiring majority of customer base through word of mouth. Because of owner's significant experience with other travelling companies and spread of word of mouth, the customer base of the company is dispersed over many cities in India and abroad.

Based on the requirement of the customers, company is providing group package tours as well as customized tours. The travel assistance includes business trip, family tour, senior citizen group tour, adventurous track, educational tour, honeymoon tours etc. In addition to providing travel assistance, company is also providing visa services, passport assistance, air/bus/train ticket booking services, cruise services hotel booking, car/coach rental. Long term goal of the company is not only to provide travelling services but to create a community of travel lovers which is reflected in company's tag line "LIVE LIFE BEFORE LIFE LEAVE YOU". However, immediate goal of company is to spread its business in domestic market and excite the customer.

7.2 Current scenario of travelling industry

We are living in such an environment where information is the core and is available at the fingertip of customers. World Wide Web has made all information accessible to everyone. In such scenario many people who are well versed with the usage of internet prefer to manage their tour on their own. Also, In Indian market there are many big players in travelling industry like Make My Trips, Yatra, Cleartrip etc. In spite of this scenario small travelling companies like DVC have their unique space in market based on following parameter:

- Small travelling companies are best options for the customers who are not very well versed with usage of internet and cannot plan their trip on their own. Such customers are largely depending upon the references to choose trip advisor. Under such situation domestic small travel companies are at the greatest advantage over big players.
- Failure of big travelling companies to provide personal assistance to their customers put small travelling companies in advantageous position.

- Cost effectiveness due to trip advisor's industry connection makes many people to turn their heads towards small trip advisors even though they can manage their trip on their own.

- For long trip or abroad trips, need of personal assistance for hazel free travel experience makes many people to prefer domestic trip advisor to whom they can reach easily in case of any emergency.

- For educational institutes in the need of external assistance to manage educational tour, such domestic trip advisors are the suitable option.

7.3 The case, problem, and analysis

Based on above market requirements and lack of domestic trip advisors in the market provides abundance scope for the company to prosper. With two and half year of business run by word of mouth approach, DVC decided to adopt new mode for marketing strategy to take advantage of above described market condition. Following are the issues faced by the company to manage its functions through traditional word of mouth approach:

- While running business through word of mouth, great efforts are required to keep customers informed at each stage of planning their travel.

- Travelling being an experiential field, convincing customers based on proposed value, keeping them updated regarding trip information, creating strong firm-customer bond at individual level required great deal of efforts and significant investment of time.

To design whole marketing strategy and to make it more effective company decided not to go with guess work. Company adopted evidence based Six Sigma approach to make their marketing efforts more effective. Though the most prominent definition of Six Sigma is based on 3.4 DPMO, according to Mast and Bisgaard (2007) the core element of Six Sigma approach are data based diagnosis and data based testing. This case study is designed based on conceptualization of Six Sigma proposed by Mast and Bisgaard (2007), where emphasis is upon following fact based decision making procedure instead of merely following 3.4 DPMO approach.

To adopt digital form of marketing, DVC followed the data based Six Sigma approach as proposed in Chapter 5. See Figure 5.3.2 for details. In addition to this, the company also decided to follow DMAIC approach as proposed by Muralidharan and Raval (2017) to stream line company's marketing efforts.

Define

Define phase of SSM approach is based on understanding the hurdles company is facing while adopting new mode of marketing. Following are the criteria based on which company had to decide upon its marketing strategy:

- Since it's a small scale start up company, major parameter to be taken care while designing marketing strategy was cost. With all the different array of marketing mode, like print media, hoardings, leaflets, radio ads, digital mode etc., company explored potentiality of each based on reaching to wider market in cost effective way.

- Since travelling is the information intensive field, company was in search of such a marketing mode through which information delivery, information updates and customer contacts can be achieved easily.

- With customer focused strategy, company decided to manage customer value chain scientifically through SSM as shown in the model in chapter 5 (Figure 5.3.2). Managing each stage of customer value chain scientifically through understanding customer value, customer engagement, and customer satisfaction by establishing strong channel of communication is the expected outcome of marketing efforts of the company.

- Even though major target market of the company was domestics, company was ready to expand horizon with international players. Hence, reaching to wide customer base through detailed information in cost effective way – is the amalgamation company expected to have in its marketing efforts.

- Along with all the above objectives, company also decided to go for marketing mode which is information intensive. That is company wanted to go for the marketing mode in which one can take informed decision based on data and hence making marketing efforts more scientific and rigorous.

First of all to understand potential reasons of poor marketing performance a cause and effect diagram (fishbone diagram) is created through brainstorming sessions with marketing

experts. Fishbone diagram is the pictorial presentation of potential causes of poor marketing results. The four major categories of causes are initiation, customer awareness, consideration and conversion as shown in Figure 7.1.
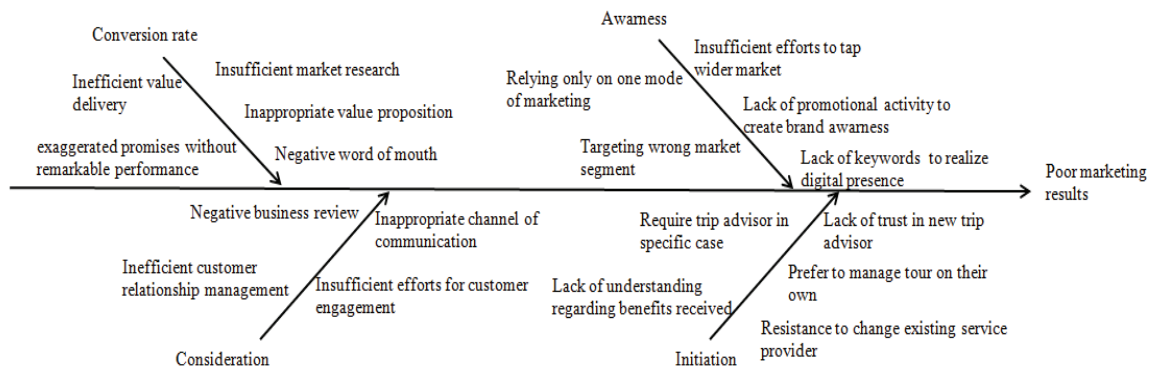

Fig 7.1. *Fishbone diagram showing causes of poor marketing results*

To address these stated objectives, it was important for the company to take informed decision based on data. Another important decision to be taken during define phase is deciding about which information to collect in order to make marketing efforts more productive.

- To take decision regarding which marketing mode to follow, company decided to explore cost-benefit of different marketing mode like print media, hoardings, leaflets, radio ads, digital mode etc. Company decided to collect information regarding advantage and limitation of each of this marketing mode and choosing the one which is best suited to its business strategy.

- Company also decided to create scientific decision making environment based on Six Sigma. Based on SSM philosophy company decided to track their marketing efforts over three major stages of customer decision cycle as shown in chapter 5 (Figure 5.3.5):

  - *Awareness:* awareness is the first step towards conversion and also initial stage of successful marketing strategy. Reaching out to the wider mass of people helps organization to understand different customer segments and their

requirements. Managing this phase through SSM gives some idea about the reach of company's offerings to the potential market. Making potential customers aware about offering which they can consider for future purchase is the major outcome of awareness phase. While managing this phase by SSM, following measurements are important:

- Understanding of how people are acquiring information about offerings.
- Number of reach by marketing efforts.
- Demographic characteristics of potential customers.
- Understanding time and mode through which customers are searching information.

- *Consideration:* Consideration is the stage while customers are moving forward in the direction of conversion through showing their interest in offerings. While managing this stage through SSM, following measurements are important:

- Customer's engagement with marketing message.
- Customer's reflexion on offering.
- Customer's inquisitiveness to explore different dimensions of offering.
- Query or questions rose regarding offering.

- *Conversion:* This is the final stage of customer purchase cycle. Customer "*Seal the deal*" based on perceived values of the offering. While managing this stage through SSM, following measurements are important:

- Ratio of conversion over lead generated in awareness phase.
- What customer value in offering?
- What can bring customer back for purchase and hence creating loyal customer base? etc.

Measure

The very first step during measure phase was to take decision regarding mode of marketing. Which mode of marketing company should prefer considering objectives stated in define phase. To choose appropriate mode of marketing company reviewed market trends and understand the potentiality and limitation of each mode. Increased reliance on IT to search for relevant information made company to think about going for marketing mode which is digital in nature. However, before to take decision regarding mode of marketing few facts regarding digital trend, future perspective and its benefits were reviewed.

According to ICT 2016 report, by the end of 2016 3.9 billion people, that is 53% if the world population is not using the internet. 75% of people in Africa, 21% of European, 58.1% Asia and Pacific percentage is 58.1% and Arab States the percentage of population not using internet is 58.4%. With increased rate of internet usage from 23% in 2010 to 42% in 2016, Asian countries are next in line for wide spread usage of internet. As per ICT 2017 report, 70% of the world's youth (15-24 years of age) are online. Out of 830 million people who are online 320 million (39%) are from China and India.

This statistics motivated DVC to go for digital phase of marketing. However, the major question remained regarding how to start with digital marketing. Creating reputed online presence required long time efforts and inputs from customers. Hence, DVC decided to go for three step strategy for their marketing efforts:

- Step-1: Since, company website is the back bone of any digital marketing efforts, DVC decided to start with launching initial phase of website.
- Step-2: In next stage customer reviews are taken and website performance was examined with reference to later improvement.
- Step-3: Based on customer review changes are made on website and new website performance was evaluated.

To start with DVC launched initial phase of website and identified room for improvement. To understand improvement parameters XY matrix was created. Different components required for basic website launch are identified to align business strategy with marketing efforts. However, XY matrix was created through the experience review of DVC founder and

marketing expert. With reference to business strategy, Y variables (output) are decided and prioritize on the scale of 1-10, where 1 indicates not much important and 10 indicates more important parameter to achieve based on business strategy. X variables are identified based on every causes of fish bone diagram as shown in Figure 7.1.

Table 7.1. *X and Y variables*

Y Variables (Outputs)	Relative Ranks
New visitors	7
Bringing back existing visitors	8
Keeping visitors engage on digital platform	6
Motivating visitors for call to action	10
Number of conversions	9

X Variables (inputs)	Relative Ranks
Quality testimonials	?
Quality content	?
Website visibility	?
Transparency	?
Engagement through social media	?

The relative ranks of X variables are obtained with reference to Y variables as shown in Table 7.1. This XY matrix is created based on relative importance of different X with respect to given Y. See Table 7.2 for a complete XY-matrix.

Table 7.2. *XY matrix*

	Y variables (outputs)							
	New visitors	Bringing back existing visitors	Keeping visitors engage on digital	Motivating visitors for call to	Number of conversions	Rating	%contribution	Priority rank
	7	8	6	10	9			
X variables (inputs)	Association Table							
Website visibility	10	7	1	0	1	141	11.36	5
Engagement through different digital platforms	7	6	9	4	6	245	19.74	2
Understanding customer value	9	8	9	9	9	352	28.36	1
Engaging content	6	6	8	5	5	233	18.78	3
Offering updates notification	0	10	5	1	0	120	9.67	6
Realization of trust and reliability	8	0	2	6	8	200	16.11	4

Note that, for new visitors website visibility is the most important parameter to land on website page. Hence, website visibility is given score 10. Another important parameter for new visitors is whether they are getting the information they are looking for on website. So, understanding customer value given score 9. Similarly, relative scores are assigned to remaining X for given value of X. Based on this association score rating score is calculated for each X by multiplying association score with respective Y rank. For website visibility rating score is calculated as,

$$\text{Rating} = 7*10+8*7+6*1+10*0+9*1= 141.$$

This contributes 11.36% to total contribution score. Based on percentage of contribution of each X to Y, the most important input variable found to be understanding customer value.

Hence, based on propriety rank following hierarchy in X is observed. Following list indicates hierarchy of X from most important to relatively less important based on different Y.

1. Understanding customer value
2. Engagement through different digital platforms
3. Engaging content
4. Realization of trust and reliability
5. Website visibility
6. Offering updates notification

To improve the performance of website it is important to address the above issues in priority and for that following steps are initiated:

- To understand what customer value on digital platform, a small survey with ten closed ended question and one open ended question was kept on website as shown in Appendix - I. Visitors who are searching for different information on website are requested to fill that questionnaire and data are recorded and analyzed for further understanding of customer value.

- Due to increased reliance on social media among youngsters, different social media accounts are created to keep customers engage. Customer engagement on different digital platforms like FB page, Instagram page is examined and their effectiveness on site traffic is evaluated.

- Engaging content plays important role to hold customer on website. Different measure like bounce rate, session time, customer navigation, drop out at different stages etc are collected to examine their engagement.

- To generate feeling of trust and reliability, customer testimonials were embedded on website and their reviews are allowed on social networking sites.

- To increase website visibility on digital platform, different Search Engine Optimization (SEO) techniques are used. This includes embedding keywords in site content based on keyword analysis of keyword planner tool, embedding different types of tags to improve website ranking, different directory submission etc.

With reference to the above identified issues the web site data are further analyzed to examine potentiality of improvement as shown in next step.

Analyze phase-I

Customer value analysis: To understand what customer value on digital platform of the travelling website, data were collected through small survey on website. To explore underlying customer value dimensions, data are further analyzed using factor analysis. Factor analysis is used to understand the structure of group of variables. While dealing with many variables, there is possibility to have inherent clusters among those variable which may represent same underlying dimension called- factor. Identifying factors can help better understand data structure. To start with, we need to examine sample adequacy through Kaiser-Meyer-Olkin Measure of Sampling Adequacy. This KMO statistics varies between 0 and 1. KMO value nearer to 0 indicates dispersal among correlation between variables and hence factor analysis is likely to be inappropriate. KMO value nearer to 1 indicates significant pattern among correlation between variables and hence factor analysis is likely to give reliable results. Minimum value for KMO should be 0.5. KMO value between 0.5-0.7 is consider as mediocre, 0.7-0.8 are good, 0.8-0.9 are great and above 0.9 are excellent. Here, KMO value is 0.746 which is fairly good to run factor analysis (Field, 2009). Bartlett's test of Sphericity test the null hypothesis that the original correlation matrix is an identity matrix. To run factor analysis we need relationship between variables. Therefore, we want this test result to be significant. Here, p-value related to Bartlett's test of Sphericity showing significant (p-

value 0.00<0.05) result. Hence, there is correlation among variables which can lead to grouping of variables and hence extracting factors.

Table 7.3. *KMO and Bartlett's test for factor analysis*

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.746
Bartlett's Test of Sphericity	Approx. Chi-Square	238.591
	df	45
	Sig.	.000

The first phase of extraction process is to determine linear components within the data set. Table 7.4 lists eigenvalues associated with each factors. Criteria to retain and discard factors from consideration are based on eigenvalues. Factors with eigenvalue greater than 1 are retained and factors with eigenvalues less than 1 are discarded. From Table 7.4 we can examine that there are three factors extracted with eigenvalue more than 1. These factors cumulatively contribute 73.74% to total variation. This factor extraction is shown through Scree plot in Figure 7.2. We can observe in Scree plot after first three points graph depicts quite similar pattern. We can observe point of inflexion after three points. This depicts extraction of three factors from the variables.

Table 7.4. *factor extraction through eigen values*

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.198	51.979	51.979	5.198	51.979	51.979	3.160	31.599	31.599
2	1.160	11.600	63.579	1.160	11.600	63.579	3.062	30.615	62.214
3	1.016	10.162	73.741	1.016	10.162	73.741	1.153	11.527	73.741
4	.792	7.918	81.659						
5	.670	6.697	88.356						
6	.426	4.263	92.619						
7	.311	3.112	95.731						
8	.209	2.092	97.823						
9	.119	1.185	99.008						
10	.099	.992	100.000						
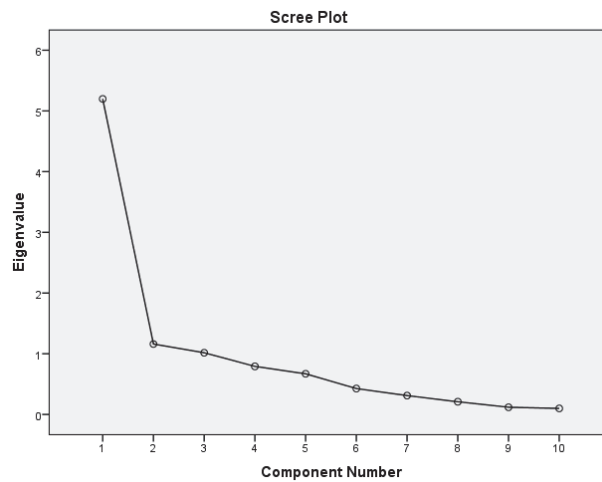
Fig 7.2. *Scree plot showing number of factors*

Table 7.5. *Variable communalities*

Communalities

	Initial	Extraction
Information provided at home page is sufficient	1.000	.634
It's taking too long to open web site	1.000	.821
I don't mine providing personal information asked on website	1.000	.800
It is easy to understand about company from website details	1.000	.744
Pictures are making website more appealing	1.000	.727
Customer information is asked for appropriate reason	1.000	.597
I get all the required information about travel package from details	1.000	.753
I get appropriate detail when I click on any link	1.000	.771
It is easy to contact service provider based on information given on website	1.000	.774
The way in which information are presented is satisfactory	1.000	.754

Next step is to identify these three factors. For this, we inspect the communalities as shown in Table 7.5. Communality is the proportion of common variance within variable. Variable communalities are calculated based on Principal Component Analysis (PCA). PCA analysis assumes that initial variance for all variables are common. Hence, initial communalities shown in Table 7.5 are all 1. After factor extraction, we can get some idea about how much variance is common between factors and variable. After extraction communality 0.634 indicates 63.4% common variance between variable and factor extracted.

Finally rotated component matrix identifies underlying factors. This matrix reports factor loadings for each variable onto each factor. In this matrix factor loading less than 0.4 have not been displayed. All the question that seems to have higher loading may represent one theme. For example in Table 7.6 majority of variables with high factor loadings on first factor indicates questions related to security. Variables with high factor loadings on second factor indicates majority of the question related to website content and Variable with high factor loading on third factor indicates question related to visibility of website. Hence, three underlying theme of website quality identified through factor analysis are as follows. They will further examined through SSM perspective.

- Security
- Content
- Visibility

Based on theme identified above, room for improvement is examined through reviewing customer agreement over different parameters as shown in Table 7.7. To identify element for improvement we are looking at the element with high percentage of response in strongly disagree or disagree categories as shown in Figure 7.3. The figure indicates percentage of disagreement and strongly disagreement over different elements of website quality. Based on percentage distribution we can say that element with more percentage for disagreement or strongly disagreement indicates room for improvement.

Table 7.6. *Factor loadings*

Rotated Component Matrix[a]			
	Component		
	1	2	3
Information provided at home page is sufficient	.401	**.626**	
It's taking too long to open web site			**.906**
I don't mine providing personal information asked on website	**.879**		
It is easy to understand about company from website details	.418	**.691**	
Pictures are making website more appealing	**.646**	.487	
Customer information is asked for appropriate reason	**.659**		
I get all the required information about travel package from details	.426	**.751**	
I get appropriate detail when I click on any link		**.877**	
It is easy to contact service provider based on information given on website	**.845**		
The way in which information are presented is satisfactory	.552	**.670**	

The improvement parameters are identified through Figure 7.3 are:

- With highest disagreement percentage (41.3%) and strongly disagreement percentage (19.6%), website loading time is the most important element to improve upon.

- With second highest disagreement percentage (10.9%) and strongly disagreement percentage (2.2%), package detailing is the second element for which company needs to consider improvement.

- With third highest disagreement percentage (8.7%), company detailing and picture quality on website are the next element in line to consider for improvement.

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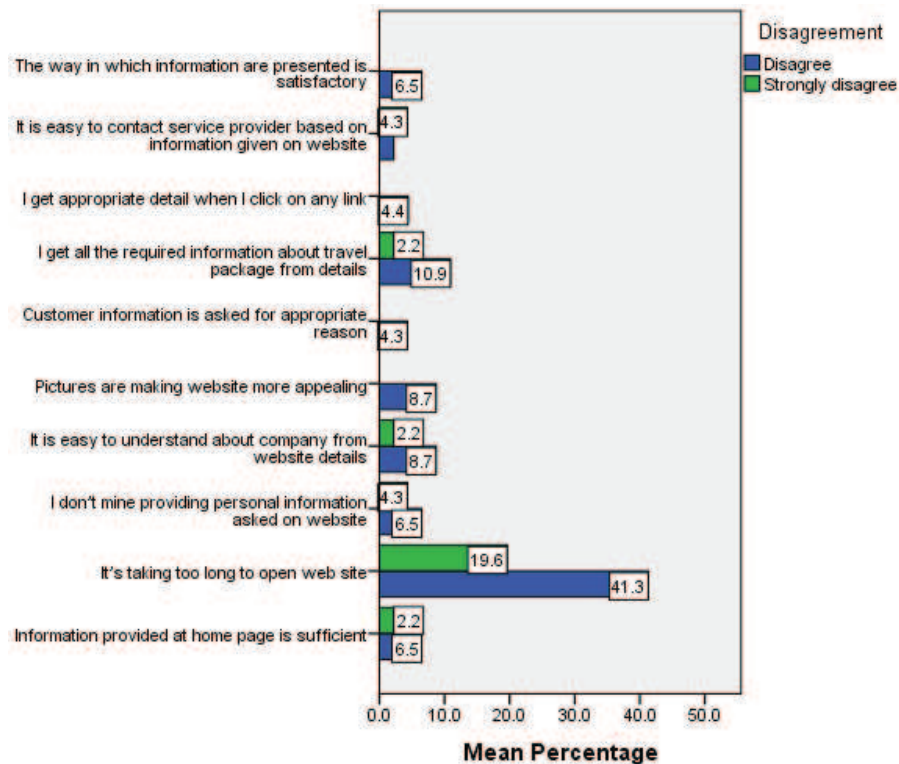
Fig 7.3. *Identification of elements to improve*

Once open ended question was asked in web survey, regarding comments of visitors for website improvement. Responses over this question gave some clue regarding on which dimension package details, picture quality and content on the website should be improved. Following recommendations are made by visitors to improve their digital experience,

- For detailing of packages some recommendations like mentioning start and end location of trip, travel mode, nearby destinations, price, and updates regarding elimination of past tours are mentioned by customers.
- Recommendations for adding picture gallery and adding pages in local language are made to improve content of website.

Table 7.7. *Identification of element to improve through percentage distribution*

			Agreement					Total
Parameter*Agreement								
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Index1	Information provided at home page is sufficient	Count	1	3	7	25	10	46
		% within Index1	**2.2%**	**6.5%**	15.2%	54.3%	21.7%	100.0%
	It's taking too long to open web site	Count	5	5	8	19	9	46
		% within Index1	10.9%	10.9%	17.4%	**41.3%**	**19.6%**	100.0%
	I don't mine providing personal information asked on website	Count	2	3	12	20	9	46
		% within Index1	**4.3%**	**6.5%**	26.1%	43.5%	19.6%	100.0%
	It is easy to understand about company from website details	Count	1	**4**	6	20	15	46
		% within Index1	**2.2%**	**8.7%**	13.0%	43.5%	32.6%	100.0%
	Pictures are making website more appealing	Count	0	**4**	4	24	14	46
		% within Index1	0.0%	**8.7%**	8.7%	52.2%	30.4%	100.0%
	Customer information is asked for appropriate reason	Count	0	**2**	7	27	10	46
		% within Index1	0.0%	**4.3%**	15.2%	58.7%	21.7%	100.0%
	I get all the required information about travel package from details	Count	1	**5**	9	20	11	46
		% within Index1	**2.2%**	**10.9%**	19.6%	43.5%	23.9%	100.0%
	I get appropriate detail when I click on any link	Count	0	**2**	6	25	12	45
		% within Index1	0.0%	**4.4%**	13.3%	55.6%	26.7%	100.0%
	It is easy to contact service provider based on information given on website	Count	2	**1**	4	23	16	46
		% within Index1	**4.3%**	**2.2%**	8.7%	50.0%	34.8%	100.0%
	The way in which information are presented is satisfactory	Count	0	**3**	11	18	14	46
		% within Index1	0.0%	**6.5%**	23.9%	39.1%	30.4%	100.0%
Total		Count	12	32	74	221	120	459
		% within Index1	2.6%	7.0%	16.1%	48.1%	26.1%	100.0%

Along with proactive source of information (survey), data are also collected through passive information sources like ad-words and Google analytics. Designing effective marketing strategy required multiple components to be taken care of as shown in Figure 7.4 (Sheth, 2016).
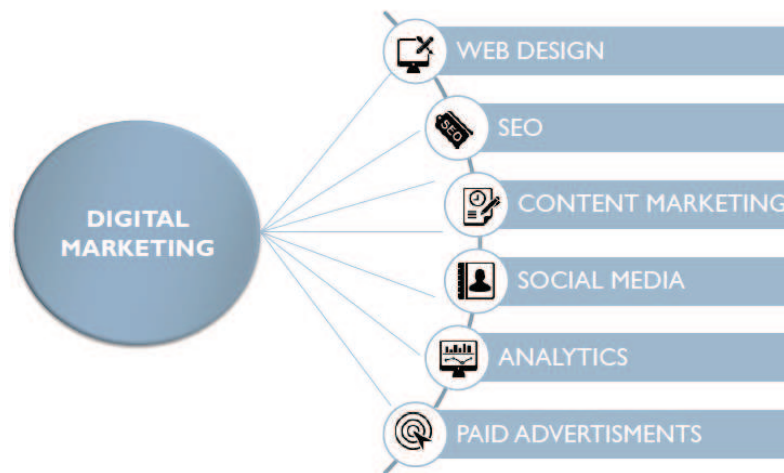

Fig 7.4. *Digital marketing tools*

We strongly believe that tactful amalgamation of all the above components is required for successful digital marketing strategy. Figure 7.5 shows the first phase of DVC website with major components as,

- Picture slider
- Upcoming tour announcement
- Testimonials
- Our services
- Information about other tours

And in Figure 7.6 we show the particular package announcement containing the following elements:
- Itinerary
- Inclusion
- Exclusion
- Price

Fig 7.5. *Home page of DVC initial website*
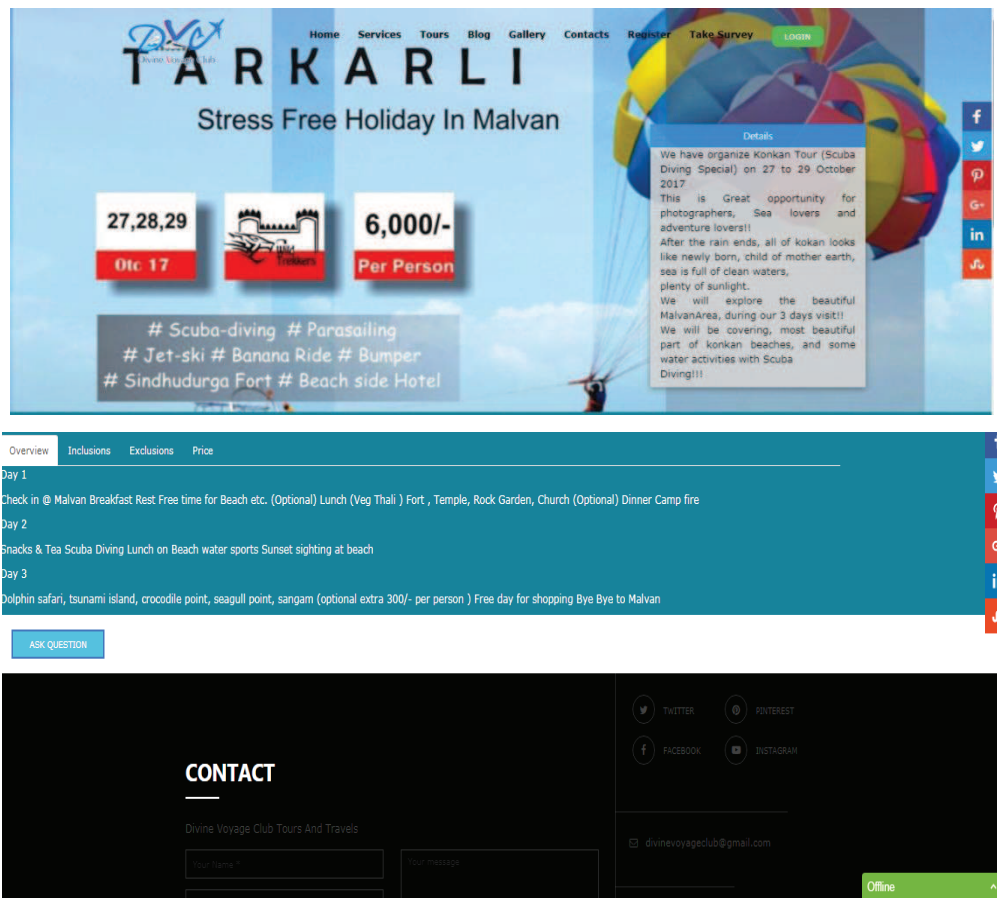
Fig 7.6 *package detail page of DVC initial website*

Customer behaviour on website gives further information for possible improvement. Google analytics is the tool which can be used to dig deep further in customer behaviour on website pages. Google analytics creates rich data base for onsite behaviour of customers. As a part of SSM efforts DVC decided to go with different metrics based on information generated through Google analytics to further clarify its marketing strategy. Home page of Google analytics displays live data regarding site performance such as number of users, number of sessions, bounce rate and session rate. This live data helps to examine website performance constantly and keeping strict watch on marketing efforts to get desirable results. This live panel also gives information about live visitors on website and top active pages on website. Along with this live data, Google analytics also generates following metrics which can very well help to manage awareness, consideration and conversion phase based on data,

- Users: the number of unique visitors on website

- Sessions: represents the number of individual sessions initiated by users to website. If a user is inactive on website for 30 minutes or more, any future activity is attributed to a new session. Users that leave site and return within 30 minutes are counted as a part of same session.

- Pages per sessions: This is the average number of pages viewed during a session on your website. More pages per session indicate visitor's engagement on website.

- Average session duration: This is the average length of session duration. Longer session duration indicates visitor's engagement on site.

- Percentage new sessions: This refers to an estimate of the percentage of first-time visits. This indicates the percentage of session that is created by new users.

- Page views: This is the number of times any page of the site is viewed.

- Bounce rate: This represents the percentage of visitors who enters the site and leave from the same page instead of continuing to view other pages. Bounce rate is calculated based on following formula,

$$R_b = \frac{T_v}{T_e},$$ (7.1)

Where,

R_b = Bounce rate

T_v = Number of visitors viewing one page only

T_e = Total entries on that page

Bounce rate is helpful to understand effectiveness of landing page. Low bounce rate shows that landing page is effective enough to engage visitors and motivates them to visit other pages. High bounce rate indicates less effectiveness of landing page to keep customers engage (see also Table 7.10). Data collected on following metrics gave important information about onsite customer behaviour.

7.4 Metrics approach of SSM to improve the quality of DVC website

7.4.1 Understanding awareness about DVC

First step to examine awareness among people for DVC is to examine the locations from where website is being assessed as well as demographic characteristics of visitors. These insights can help company to manage business considering visitor base characteristics. Visitor base from dispersed geographical region indicates more awareness regarding DVC in different parts of the world. Figure 7.7 is showing geographical regions from where website is being assessed. The scale shown in the diagram indicates the intensity of visitors from different parts of the world (from light blue to dark blue).
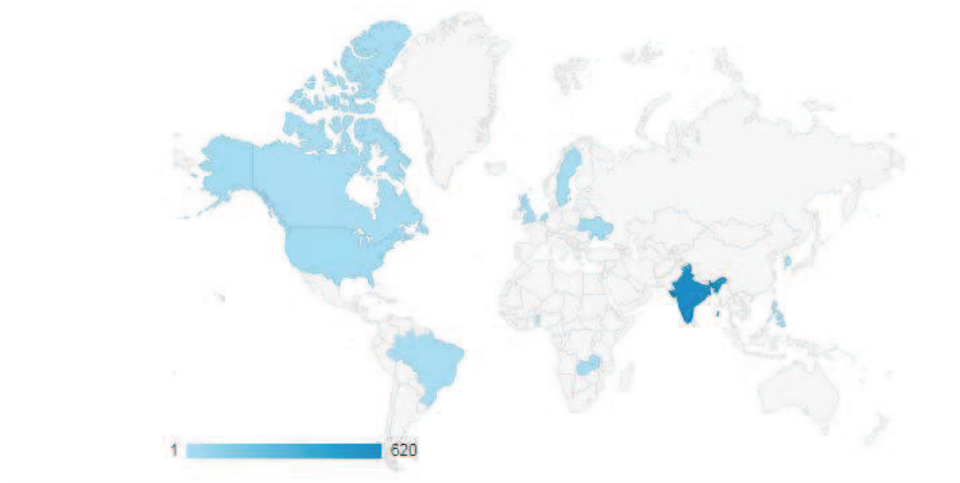
Fig 7.7. *Geographical regions from where website is being accessed*

Table 7.8 and 7.9 summarizes the visitors according to the countries and locations. The metrics that can be used to get some idea about awareness is number of website users. Higher number of visitors indicates more awareness about DVC. Google analytics generates rich data for number of visitors per day, mode of users acquisition and device through which visitors are accessing website. Information regarding time duration of customers for assessing the website is also generated to understand visitor's behaviour. DVC decided to use all these information to decide about the investment they have to make for their marketing efforts.

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With an average 5 visitors per day, the trend in number of website users has increased (see Figure 7.8), specifically; the trend has increased during festivals occasions and holidays.

Table 7.8. *List of countries and Indian states from where DVC website was accessed*

Visitors from different countries of the world			Visitors from different states of India		
Country	Sessions	% Sessions	Region	Sessions	% Sessions
India	620	92.26190476	Gujarat	562	90.64516
United States	24	3.571428571	Maharashtra	40	6.451613
Ukraine	18	2.678571429	Madhya Pradesh	7	1.129032
Philippines	2	0.297619048	Delhi	3	0.483871
Benin	1	0.148809524	Telangana	3	0.483871
Brazil	1	0.148809524	Karnataka	2	0.322581
Canada	1	0.148809524	Uttar Pradesh	1	0.16129
United Kingdom	1	0.148809524	West Bengal	1	0.16129
South Korea	1	0.148809524	Goa	1	0.16129
Netherlands	1	0.148809524	Total	620	100
Sweden	1	0.148809524			
Zambia	1	0.148809524			
Total	672	100			

Table 7.9. *List of Indian cities from where DVC website was accessed*

City	Sessions	%Sessions
Surat	405	65.32258
Ahmedabad	150	24.19355
Pune	16	2.580645
Mumbai	12	1.935484
Pimpri-Chinchwad	9	1.451613
(not set)	4	0.645161
Bhopal	4	0.645161
Hyderabad	3	0.483871
Vadodara	3	0.483871
Indore	3	0.483871
Valsad	2	0.322581
Bengaluru	2	0.322581
Kolhapur	2	0.322581
Lucknow	1	0.16129
Kolkata	1	0.16129
Nadiad	1	0.16129
Panjim	1	0.16129
Kalyan	1	0.16129
	620	100

Fig 7.8. *Trend in website users*

However, the important thing to understand was to get idea about customer acquisition. That is to understand which channel is effective enough to bring traffic on website. It is also important to study proportion of returning visitors and new visitors. The visitor's acquisition through different channels is shown in Figure 7.9.
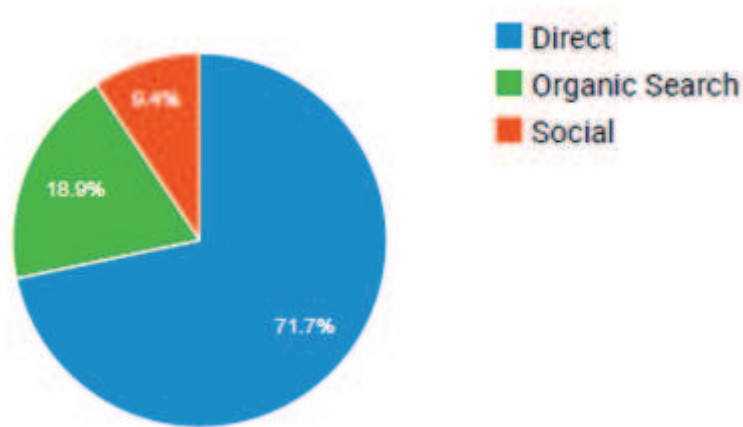
Fig 7.9. *Visitor's acquisition channels*

Since, the launch about 71.7% users acquisition was realized through direct URL search. Due to brand awareness through word of mouth the organic search contributes 18.9% to the user's

acquisition and the rest is contributed by Social media. With increased presence of millennial on social media, DVC decided to invest efforts in Social Media Marketing (SMM). To take decision about social media post scheduling, user by time matrix was used as shown in Figure 7.10.
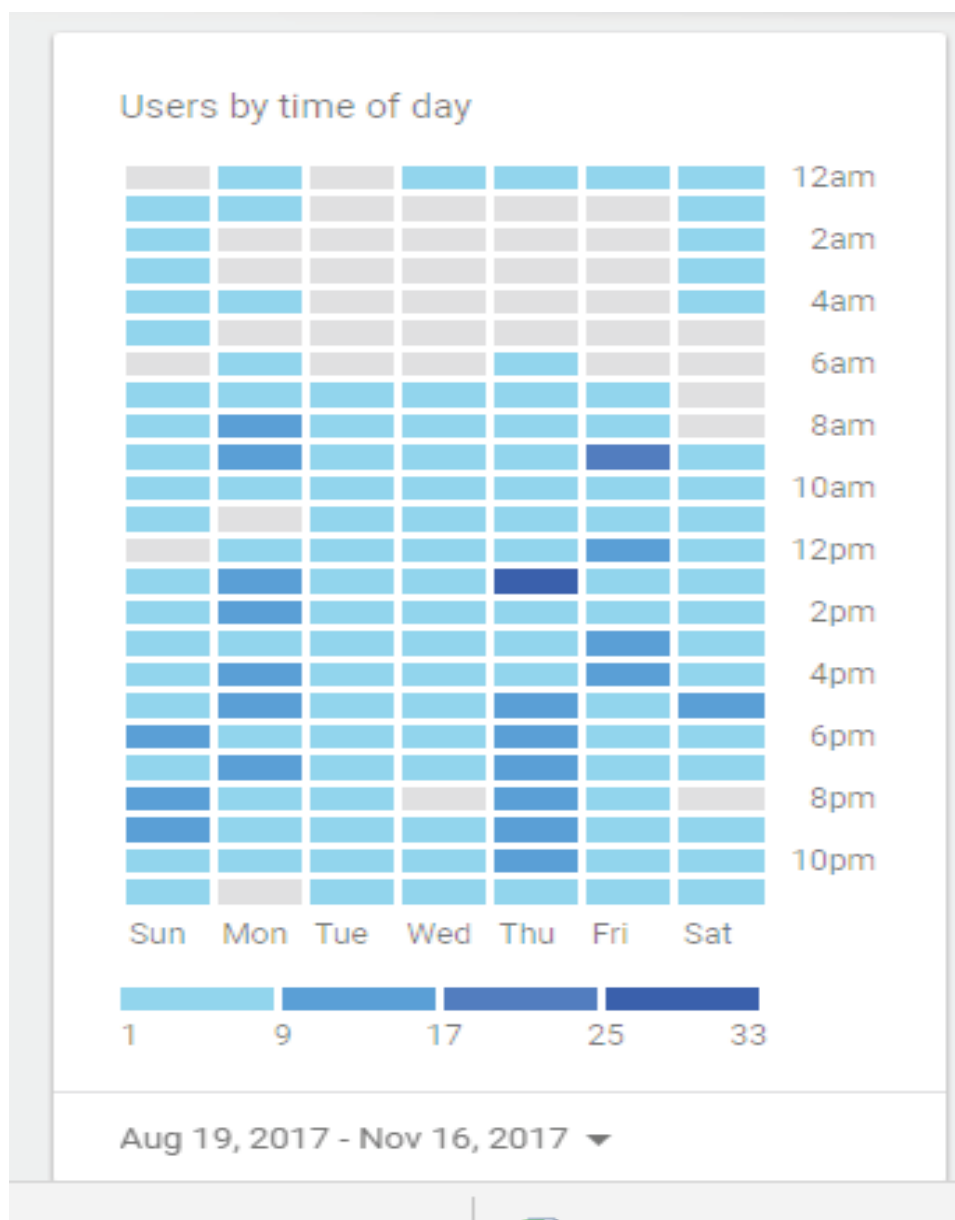
Fig 7.10. *User by time metric*

This metric helps to understand time during which most customers are visiting site. Here, the shade dark blue indicating more visitors during that time and day followed by lighter shades

indicating decay in traffic. From Figure 7.10 it is observed that high visitor flow is observed during Thursday afternoon hours (12 pm - 2 pm) and Friday morning hours (8 am-10 am). Hence, engaging customers during these hours may results into high customer onsite traffic. Information shown in users by time metrics can help marketers to schedule their social media post or website announcement for maximum site traffic.

7.4.2 Understanding customer engagement

Once the visitors are on website, the next step is to keep them engage on the website and navigating them through different pages. Time visitors spend on website (session duration) is one of the major indicators of their engagement. More the time they spend on website, more engaging the website content is. Another measure of visitors engagement is how quickly they leave webpage (bounce rate). If visitors leave the website from the same page they land on website it is counted as bouncing event. Web pages with higher bounce rate are the pages having less engaging content and hence providing opportunity for improvement. After the initial launch of DVC website, pages with higher bounce rate are identified to make improvement efforts more aligned. With an average 43.6% overall bounce rate, following pages of websites are found with 100% bounce rate. That is visitors who are landing on these pages are leaving from the same page without exploring website further. Pages with higher bounce are shown in Table 7.10.

Here bounce rate value 1.00 indicates 100% bounce rate for that webpage. As observed from Table 7.10, major pages with higher bounce rate are pages of different packages. This information also get aligned with visitor's survey, where visitors find package details insufficient. Another major page found to engage visitors is contact us page with 50% bounce rate. Since, landing of visitors at contact us page is major action of interest to the company, higher bounce rate is least expected at this page. This information further recommends improvement on this page.

Table 7.10. *DVC website pages with high bounce rate*

Landing_page	Bounce_rate
/allpackage.php?alldestination=goa&allpid=1	**1.00**
/divine/index.php	**1.00**
/packagedetails.php?pid=1	**1.00**
/packagedetails.php?pid=16	**1.00**
/allpackage.php?alldestination=Goa&allpid=1	**1.00**
/allpackage.php?alldestination=kerala&allpid=2	**1.00**
/allpackage.php?alldestination=Kevdi&allpid=11	**1.00**
/allpackage.php?alldestination=nainital&allpid=5	**1.00**
/allpackage.php?alldestination=sikkim,gangtok&allpid=6	**1.00**
/divine/allpackage.php?alldestination=Bordi&allpid=12	**1.00**
/divine/package.php	**1.00**
/packagedetails.php?pid=12	**1.00**
/packagedetails.php?pid=13	**1.00**
/packagedetails.php?pid=21	**1.00**
/survey.php	.70
/service.php	.64
/packagedetails.php?pid=3	.60
/packagedetails.php?pid=24	.59
/index.php	.56
/contact.php	**.50**
/newdvc.php	.50
/packagedetails.php?pid=17	.50
/packagedetails.php?pid=2	.50

7.4.3 Understanding customer conversion

Since, DVC was launching initial phase of website, major action of interest (conversion) was to navigate visitors towards the contact us page. Understanding the path through which customers are reaching to the contact us page and examining drop outs helps to optimize conversion path and hence improving conversion rate. Visitor's navigation path towards contact us page is shown in Figure 7.11.
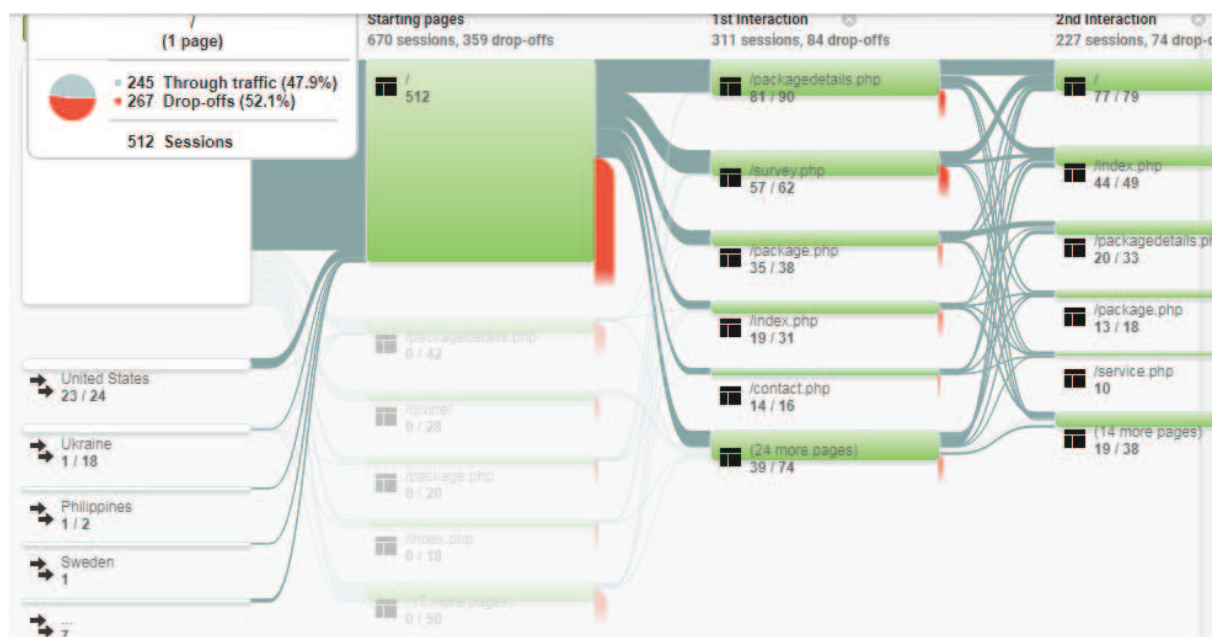
Figure 7.11 *navigation path towards contact us page*

Visitors are reaching to contact us page through different landing pages with many drop offs and navigation to other pages. Table 7.11 shows number of sessions initiated at different starting pages, drop offs on those pages and navigation towards contact us page. For example, there are 512 session initiated at home page (/) out of which 267 (52%) drop offs observed. Finally only 16 sessions (3.125%) are initiated on contact us (/contact.php) page through home page. The page through which maximum success (80%) observed is different package page(/package.php). Hence, maximum visitors are reaching to contact us page through package page. So this is the path that can be optimized in new version of website. Based on given information sigma level of the conversion process is calculated as below.

Table 7.11.*DVC website pages with high bounce rate*

Starting Page	Total sessions	Drop offs	Target (Conversion)	Total sessions	% success
/	512	267	/contact.php	16	3.125
/packagedetails.php	42	29	/contact.php	0	0
/divine/	28	12	/contact.php	0	0
/package.php	**20**	**9**	**/contact.php**	**16**	**80**
/index.php	18	10	/contact.php	0	0
17 pages	50	32	/contact.php	6	12
Number of opportunity	**670**		**Number of success**	**38**	

There are 670 sessions initiated at different pages of website. That is, TOP=670. The number of successes is 38. Hence, number of defects are 670-38=632. The corresponding, DPMO = $(670/632)*10^6=943283.58$ and this corresponds to 1.58σ. We expect to improve this sigma level in future (the monitoring is going on).

Improve

Improvement efforts of DVC started with increasing website visibility on search engine. To do that different SEO techniques are used. One of the important methods to improve website visibility is designing content of website embedded with keywords. Keywords are the words though which customers search for online information. Integrating these keywords with website content helps to improve website visibility on digital platform. To get information about highly competitive key words, keyword planner tool was used. Major keywords identified through this tool are shown in Table 7.12.

Table 7.12. *Key words identified through key word planner tool*

Competitive key words	Frequency
packages	103
tour	36
tour packages	80
travel	76
Honeymoon	41
Shimla kullu manali	312
booking	80

To further improve website visibility different tags like geo tags, Meta description, Meta key words were kept in html code prepared by the company. However, based on customer review and data analytics many changes have been made on the website. Figure 7.12 shows the improved version of the web page of the company. The improvements include:

- Easy to reach contact details so that visitors can easily send their query and they don't required to navigate through contact us page all the time

- Highlighting DVC's market differentiators on website was important. This can help company to further add value to the offering and helping customers to take informed decision.

- Detailed information about different packages including price, places of interest, inclusion, exclusion, mode of transport etc. This major improvement was required so that maximum information can be conveyed through website only which results into minimum personal interaction with prospective customers and hence contribute as time saving value added feature.

- How first visitors perceive company is largely depends about the details of company provided on the website. Hence, with focus to share long term goals of the company and highlighting major services, necessary changes were made in about us part of the website.

- To create feeling of trust among website visitors, additional testimonials were integrated on new version of website.

- Navigation to other pages of website was made easier from multiple locations.

With all these changes our major goals were revisited again and improvement was suggested for the three dimensions: awareness, consideration and conversion.

To improve awareness one more tool of digital marketing was used – paid ads. With ability to reach at wider mass, paid ad has credibility to improve website traffic. Based on demographic information collected through Google analytics regarding age and gender of visitors as shown in Figure 7.13, new package was launched. Considering age of major visitors between 18-34 years new Manali winter track package was launched. This information was further used to create Face Book paid ads.

Easy to reach contact details

Value differentiator

Packages with all details-price, places of interest, detailed itinerary, pictures, travelling mode, query panel
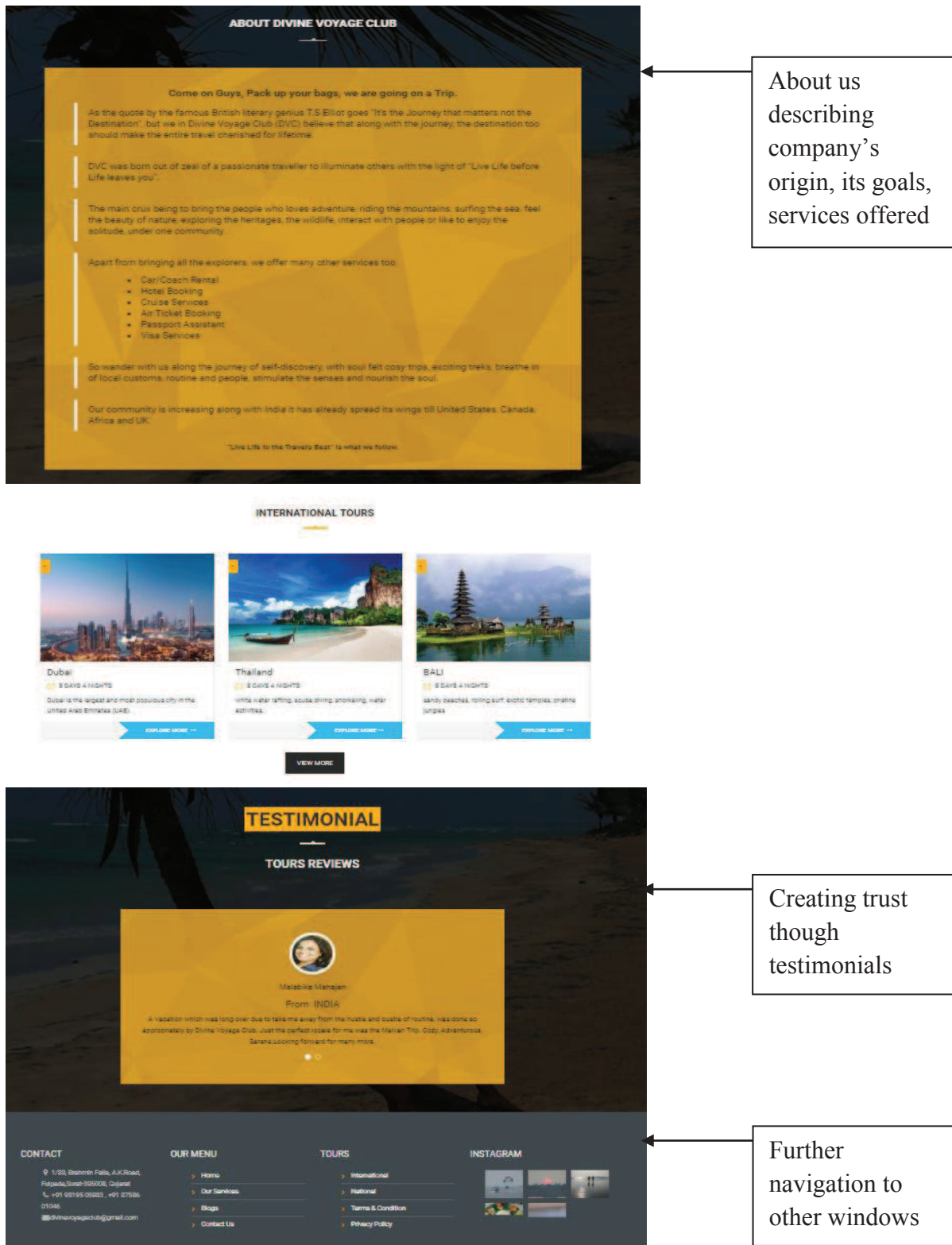
Conte…

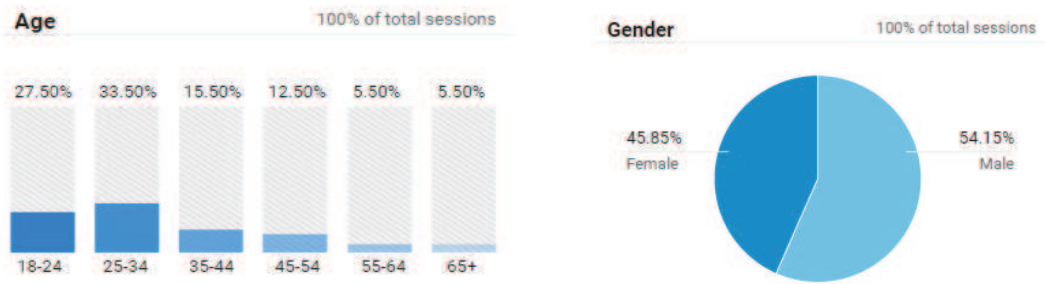**Fig 7.12.** *New home page of website with data based changes*

Fig 7.13. *Age and gender classification of visitors*

FB paid ads is one of the most effective promotional tools to target prospective buyers. FB ads manager propose all the settings from selecting objective to selecting demographics of the group of people to whom you wants to show your ad. Unlike print media digital promotion allows to target prospective customers through all the different filters like age, gender, geographical region etc as shown in Figure 7.14.

Fig 7.14 *FB ads audience setting*

This promotional tool also provides opportunity to set your promotion budget based on promotion objective you select for as shown in Figure 7.15. With estimated daily results and link click number this tool predicts daily possible reach of promotion.

Fig 7.15. *FB ads biding strategy*

With all these setting EB promotion was launched with aim to increase visitors on newly launched version of DVC website as shown in Figure 7.16.
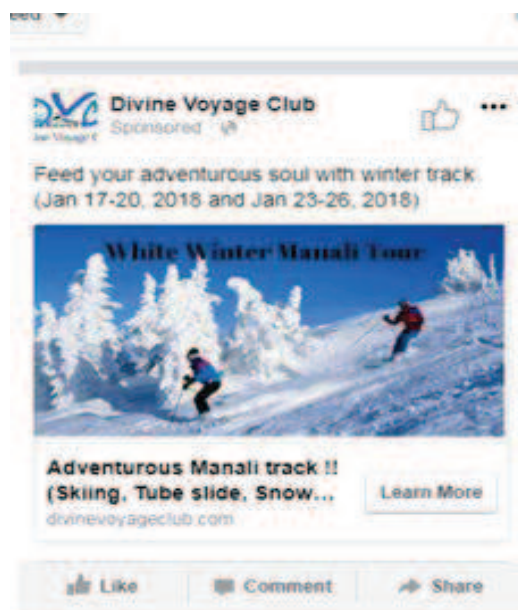

Fig 7.16 *FB ad to increase awareness*

To ascertain the improvement of the new website we carry the *Analyze phase-II* as given below:

Analyze phase-II

After all the above improvement efforts performance of website was again examined through different metrics. To start with improvement in awareness is examined with increased number of website visitors. As shown in Figure 7.17, with all SSM SEO efforts and well crafted FB promotion average number of daily visitors rose to 12 from 5 earlier.
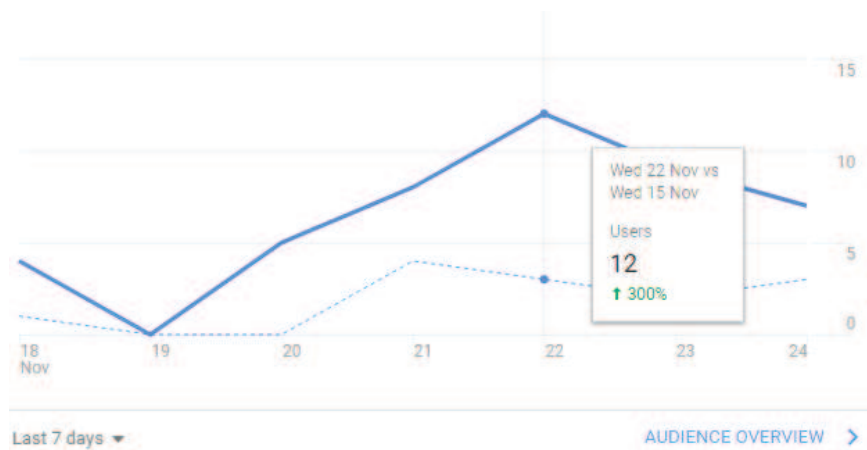

Fig 7.17. Improvement in number of daily visitors after SSM efforts

The live window statistics as shown in Figure 7.18 shows improvement in onsite customer engagement through increased number of session reduced bounce rate and increased session duration. Even visitors engagement on social media also improved considerably (see Figure 7.19).

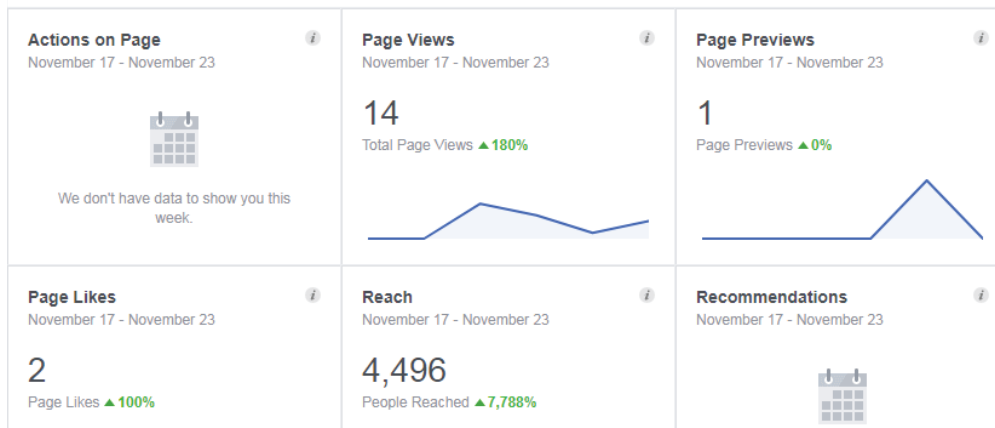**Fig 7.18**. *Google Analytics live window showing improvement after SSM efforts*

Figure 7.19. *Improved visitors engagement on DVC FB page*

Control

This step of SSM DMAIC approach generally entails developing a control plan to maintain progress that was realized during Improve phase. Following steps are taken to sustain realized improvement:

- Considering high engagement realized on the website due to shared customer experience, DVC decided to integrate customer experience blog on website and customer review through different channel of communication as shown in Figure 7.20.

Fig 7.20. *Customer review on social media*

- Considering insights from visitor's engagement through media type, DVC realized higher engagement on photos (see Figure 7.21). Hence, travel photos are in the highest priority of DVC social media update. Not only that based on duration of most active visitor's as shown in Figure 7.22. DVC decided to schedule its post accordingly. This phase ends the whole cycle of pleasurable TCE.
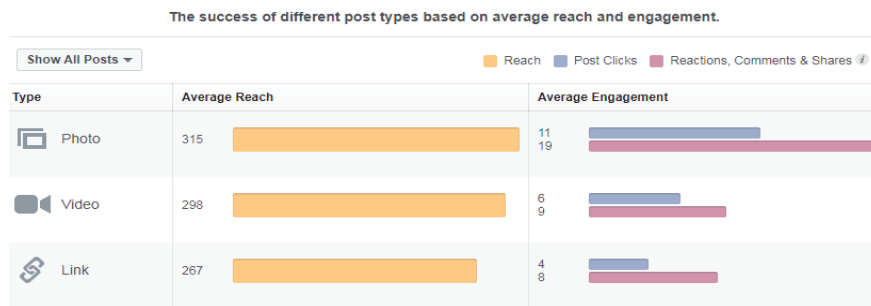

Fig 7.21. *visitors engagement through media type on DVC FB page*

Figure 7.22. *time duration of most active customers on DVC FB page*

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- Considerable improvement realized on web traffic through Ad campaigns, made DVC to regularly opt for such campaign to constantly improve visitor's awareness.

Above case study exemplifies that following the SSM approach, one can bring many changes that translates to advantages for marketing managers. Taking major marketing decisions backed by SSM metrics helps marketing managers to keep close watch on the cause and effect relationship between efforts they put in and corresponding results they are getting. This enables marketing manager to take informed decision in place of making guess and using gut feeling.