

Quynh Chi Pham

Tourism Promotion Video Production

Quality Management and Acceptance Study

Helsinki Metropolia University of Applied Sciences

Bachelor of Engineering

Media Engineering

Thesis

Date 29.04.2013

Author(s)	Quynh Chi Pham
Title	Tourism promotion video production: quality management and acceptance study
Number of Pages	33 pages
Date	29 th April 2013
Degree	Bachelor of Engineering
Degree Programme	Media Engineering
Instructor(s)	Erkki Aalto, Head of the Media Engineering Programme
<p>This thesis is based on the project of creating promotion movie clips about travel destinations for a tourism company. The idea of the project is to provide a short guideline with brief information and to bring people, who want to visit Vietnam, main images about the country.</p> <p>The purpose of this dissertation was to go through progress of video making and publishing to the Internet with personal experience. As an audio-visual product, the project follows three basic steps: preproduction, production and postproduction. During period of the project, not only professional knowledge that students learn from school is applied, but also communication and discussion skills from the role of a service provider with the client is improved. In the thesis, not only information about working process but also actual experience (difficulties and mistakes) are shared, which might be a helpful material for amateur videographer.</p> <p>Secondly, the study concentrates on the stages of project and quality management under both theoretical and practical perspectives of a Media Engineering student. Planning production processes and scheduling are indispensable in term of project management, which are covered in the thesis. Besides, it is also a handbook for clients working in media industry to develop, improve and evaluate their own products. The investigation about quality management of products and/or services in two important aspects: quality of service and quality of experience clarify what customer expectations are and how to fulfil their requirements.</p>	
Keywords	promotion videos, videos for the web, quality management, media project, quality of service, quality of experience, project management

Table of Contents

1	Introduction	1
2	Production work-flows	3
2.1	Preproduction	5
2.1.1	Analysis of the assignment and end-product	5
2.1.2	Recording Equipment	6
2.1.3	Script Writing	7
2.1.4	Shooting Locations Research	8
2.2	Production	9
2.2.1	Camera Technique: Distance	9
2.2.2	Camera Technique: Angle	10
2.2.3	Camera Technique: Movement	11
2.3	Postproduction	13
2.3.1	Ingest To Postproduction	13
2.3.2	Assets Management	14
2.3.3	Editing and Rendering Optimize to Web	14
2.3.4	Compression	16
2.3.5	Testing	17
2.4	Distribution	18
3	Quality Measurements	20
3.1	Quality of Service	21
3.2.1	Definition	21
3.1.2	Quality of Service Measurement	23
3.2	Quality of Experience	24
3.2.1	Definition	24
3.2.2	Measurement	24
3.4	Quality Management	25
3.3	Survey	28
3.3.1	Feedback Form	28
3.3.2	Feedback Summary	29
4	Conclusion	31
	References	33

1 Introduction

Video is one of the most important and successful inventions of the twentieth century. What is a video? Video refers to the chain of continuous pictures which are combined to create the movements of captured objects. What is a video for? It can be a movie in the cinema, a short advertising clip on television or just simple funny moments filmed by someone and uploaded on the Internet.

After decades of developing, video production has become more and more popular and helpful in many different areas of the modern life. With wide and common usages of digital video, recording equipment is getting smaller in size, more reasonable in price and higher in quality in comparison with years ago, people spent more money and time on it.

The Internet is known as the most noticeable technological innovation of the last century, which contributes the success of other sciences. Eventually, many kind of information have been spread out on the Internet and video production is not an exception.

Indochina Charm Travel (ICT) is Tourism Company based in Vietnam. Indochina region includes three countries: Vietnam, Laos and Cambodia. With fifteen years of experience in travel industry, ICT promises to provide international and professional services to its customers in order to let travelers explore "the Hidden Charm of Vietnam, the attraction of Angkor Watt (Cambodia) and the mystery of country of Million Elephants (Laos) [1,3].

In the current competitive industry, promotion has become one of the most considerable strategies of every single company. In order to visualize travel destinations, ICT decided to create the short movie clips of outstanding and impressive destinations around Hanoi - the capital of Vietnam. Those clips were made based on the brochure Destinations and Exclusive Discovery Features designed by ICT and then uploaded to Youtube and linked to the official website of ICT (www.indochinachartravel.com). The main purpose of the video is to provide travelers

realistic and concrete view of Vietnam daily life with morning activities, local markets in not only big cities but also small ancient villages.

Basically, this thesis consists of two goals. Firstly, it expresses my personal experiences of making video and the processes of web video distribution. Steps of preparation until delivery are visualized realistically in order to make readers understand more deeply and clearly the job of a video maker.

Secondly, the dissertation concentrates on analyzing video quality measurement standards and management with two main requirements: quality of services and quality of experiences. Furthermore, the current status and the trend of digital video in both short-term and long-term future are also considerable.

2 Production work-flows

Production work flow contains three main procedures before delivery to the client and the end-audiences after that. First of all, preproduction is the step for planning and preparing recording equipment, script writing and scouting locations. Basically, the more consideration is put to this stage, the less problems there will be during the production period. Second stage is production which includes audio arrangement, lighting, shooting, as well as directing, art and effects. After the camera stops rolling, postproduction is started for the aim of constructing movie clips based on written storyboard and captured videos.



Figure 1. Production work-flow

Figure 1 illustrates the fundamental evolutions of video manufacturing from preparation until publishing stage. In each phase, the communication between the

client and video-producer is always indispensable to get miscellaneous perspectives in order to improve the quality of the project.

2.1 Preproduction

2.1.1 Analysis of the assignment and end-product

When the project is received, it has to be analyzed in phases of what it is, whom it is made for and how to get it done. In other words, the purpose of project analysis (PA) is to make the whole team - the client and the videographer - form its mission statement, understand the challenges of procedure and point out the strategy of development. A successful PA includes not only comprehensive understanding about the company such as its products and goals but also details of the project.

In this project, the role of the client is to provide information about the target audiences and consultation of the intent destinations. On the other hand, the videographer should implement the PA with his apprehension and skills about image and video technology.

- Goal: introduction of exclusive travel destinations around Hanoi, the capital of Vietnam
- Target audience: the potential tourists of Vietnam from abroad
- Communication tools: face-to-face, mobile phone and email
- Storyboard: based on brochure Exclusive Destinations
- Recording equipment: provided by the client
- Schedule: within three months

The idea of this phase is to let the people, who work on throughout the project, understand their roles and be ready for the challenges and incidents. When both sides can take their responsibility for the common project, all steps can be ensured to occur punctually.

2.1.2 Recording Equipment

As has been mentioned in the chapter Introduction, the company I worked for was a tourism company. They provide travel packages and tours, not video products, thus, they do not have “professional” video making equipment such as HD video camera, tripod and audio recorder. The fact was that they were willing to catch the most natural activities of daily life that did not require a lot of arrangement. Furthermore, the end-clips supposed to be published through the Internet, so that the resolution was going to be reduced to fit the expectation of the client.

I had got three cameras: Sony DCR-SR65, Sanyo Xacti CG9 and Canon G10. The specific technology details are listed on Table 1.

Table 1. Recording equipment specification

Name	Sony DCR-SR65	Sanyo Xacti	Canon G10
Type	Handy cam	Pocket Camera	Power Shot Camera
Video Quality	LD, SD, HD	SD	SD
Video Resolution	720x576	648x480	648x480, 320x240
Frame Rate	25fps	30fps, 60fps	30fps
Memory	Body Memory	Body Memory	SD Memory Card

As can be seen on table 1, all the cameras had the advantages of small size that helped me carry easily and set up quickly. This was actually a very good point when human objects were mostly random people at visiting place. No one knew exactly what would happen and whom could be met. For example, when I captured village Tho Ha, the activities at local market with hand-made rice paper and local agriculture products were what I was informed in advance but passing bike of burden, children playing around, old people gathering in front of a temple or just simply chickens walking around to find some food were out of our expectation. And they were valuable scene for the movie clips that we planned to make, we wanted to catch those natural moments of normal life. In the case, a neat camera was precisely what we needed.

Nevertheless, the video resolution of the cameras was not high, thus, I was not really happy with the result I got. The color was sort of dark and images were blur and unclear. Besides, they all had different video resolution, hence, one movie clip should be recorded with only one camera; otherwise it would become very messy.

From image quality point of view, it was beneficial to film with the best possible camera. However, the final videos were going to be uploaded and spread through the Internet, which meant that the resolution is superfluous to be high. In this case, the latest products were online ones, consequently, content was more considerable than image quality.

An important tool for filming is a tripod. The missing of tripod brought sometimes a big challenge to me when I had to take a long video and my hands started getting tired. It would be extremely helpful to prevent hand shaking after a long time holding the camera even though it is small and light if there was a tripod. With a lot of movement during shooting time, a light tripod would be the best choice or a monopod would be relevant alternative.

Concerning to lighting and audio, I did not use any separate equipment for them due to the limitation of the company in the video making area. No setup was arranged. In other words, the nature sun and other lights at each place contributed to create the brightness of the video. In general, this worked well because the main shots were about out-side activities where it was bright enough. Even so, once I had to capture inside a pagoda, there was only some light through the door slots and few candles, Sony DCR-SR65 still was not able to handle the situation and the result I received was a lot of noises.

2.1.3 Script Writing

The next step after equipment preparation was to sketch up stories. In other words, both client and videographer should co-operate in contemplation of designing the content of the video antecedently.

About the project, the main guideline of the scenario was the brochure Destinations and Exclusive Discovery Features. In the book, every place was described by not only many images but also text description. During the period of constituent building, the communication between two sides of the project was truly momentous. The client worked as a director who introduced the outstanding characteristic of the objects and

me - videographer suggested camera distance, angles and movements, and shooting plan.

Undoubtedly, the length of the particular videos needed to be specified during the scripting phase depending on the own attributes of the each area and requirements of the client. Indeed, the decision was not entirely fixed. It was changeable since there were going to be a lot of incidents in the time of filming. Notwithstanding, the aforethought agreement of video duration was always necessary when it made both the videographer and the editor aware of what they should catch and keep.

Other than images, sound is also an essential element that contributes to the success of the clip. Therefore, preparation of audio effects was conspicuously careful. The client decided both to keep ambient noise and to add some other songs for background. They were different Vietnamese songs with traditional melodies, suitable with images of the specific video. In defined scenes such as the folk music performance, only the sound of instruments and the voice of singers were used without any other additional background music in order to bring audiences the most realistic view of the region.

2.1.4 Shooting Locations Research

At first, the tabulation of destinations was decided by the client. When the number of destinations has been fixed and my supervisor has a wide knowledge about them, he supported me to get the basic idea of each location.

- Pagoda Tay Phuong
- Village Duong Lam
- Village Tho Ha
- Hanoi
 - o The old quarter of Hanoi
 - o Morning exercises around Sword Lake
 - o Van Mieu – The first university of Vietnam

The client arranged one-day inspection tours to some places with participation of the whole company. Each village has its own distinguishable points to attract tourists. For example, pagoda Tay Phuong impresses visitors with its old-aged stone stair way in the middle of jungle, sculpted wooden roofs following folk motifs and especially, the famous twelve statues of Arhats (La Han). On the other hand, visitors are excited with Tho ha entrance way by ferry, local market, hand-made rice paper making technique and hospitality of villagers. Coming to the capital of Vietnam, Hanoi accommodates a lot of hidden charm behind historical sites, morning exercises around Sword lake or even daily activities in the old quarter.

2.2 Production

Production is the stage of filming that contains directing, cinematography, lighting, audio and probably art and effects. In this chapter, some camera techniques are going to be introduced and analyzed in brief with pictures to make readers knowledgeable about basic technical filming elements such as shot sizes, camera angles and movement.

2.2.1 Camera Technique: Distance

Video is a combination of continuous images, thus, well-constructed shots will make a better video. In order to make a short film that complies with audience expectations, there are some rules of composition that must be followed.

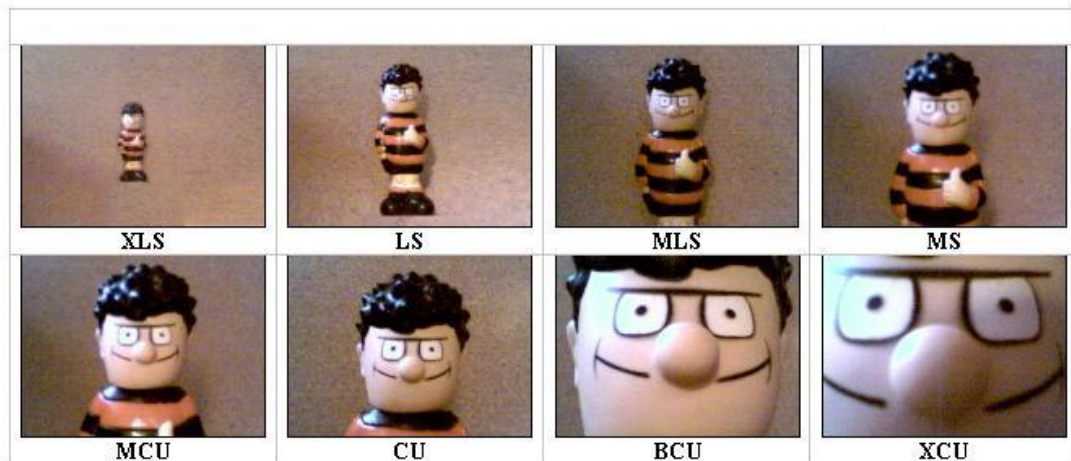


Figure 2. Shot sizes. Reprinted from Daniel Chandler (2001) [2]

Figure 2 indicates the main size of shots. Extremely long shot (XLS) captures the large area of view with camera placed far away from the object to bring as much information about the place as possible. Long shot (LS) usually includes the main objects and its surroundings. In medium shot (MS), actor and its settings occupy equal areas in the frame, hand gestures can be seen in MS. Actually, MS is applied for the tight conversation of two or three actors. Close-up shot (CU) is frequently used to show the whole face while extremely close-up shot explore particular elements such as eyes in very close detail to express emotion of the object.

A video should start and end with a wide shot instead of a close-up one. Besides, it is better to have a medium shot in between long and close-up ones to prevent jumps of images. In conclusion, each shot has its own role, a good video-maker needs to know how to capture reasonable shots and combine them together to make logical and relevant videos.

2.2.2 Camera Technique: Angle

Camera angle refers to the location of camera to capture subjects or scene. The goal of disparate positions is to create different impacts on viewers and the way they perceive the scene.



Figure 3. Shot angles. Copied from Daniel Chandler (2001) [2]

As can be seen in figure 3, there are various ways of settling camera to make your shots more interesting. Eye-level shot is the most general one to capture a human because it displays the most natural outlook of the person. With low camera angle (below eye level), the captured object looks bigger and more powerful. By contrast, the object seems to appear smaller and lack of power in high angle of view (above eye level).

In the case of two person in conversation (is also called two-shot), the camera can be placed to capture one person over the shoulder of the other one. It is ease to figure out the height of them in comparison and present the societal position or power of them via the shots. After all, certain camera angles convey specific impressions to viewers and mixture of numerous perspectives brings them comparable experiences about the same object in distinctive conditions.

2.2.3 Camera Technique: Movement

Handling camera is one of the most important skills of a videographer, which is learnt throughout practicing. Diverse, smooth and flexible movement of shots presents how

professional, experienced and skillful the videographer is. The aggregation of camera changes in location, angle or just focal length of lens can make up a result as a dynamic and colorful video.

Focal length (FL) refers to the distance from the lens to the film. The shorter FL is, the wider the viewing angle is, hence, the larger section of object is captured. In other words, to get clear details of an object, the videographer has to increase the value of FL.

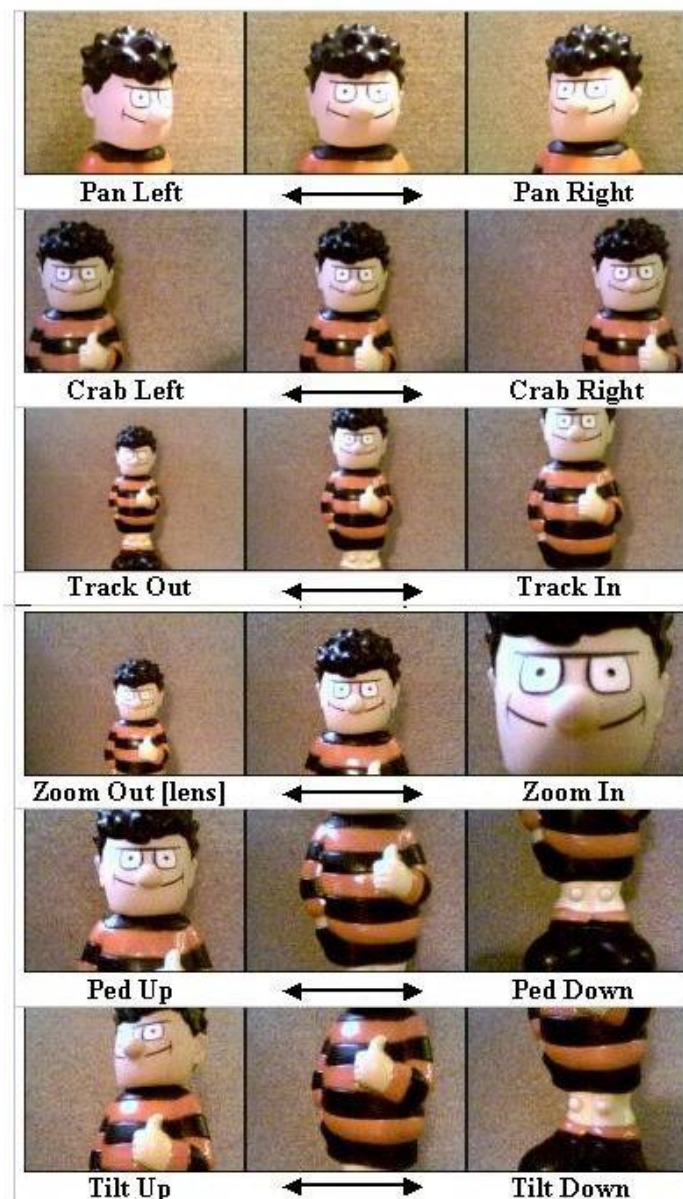


Figure 4. Camera and lens movement. Reprinted from Daniel Chandler (2001) [2]

Figure 4 is a vivid and comprehensible sample of movements of camera and/or lens in filming phase. Panning can be used when the videographer stays in fixed location to follow a moving subject horizontally while crabbing shot describes the action of camera along filming object when they are in parallel motion. If pan and crab shots define horizontal movements, pedestal (ped) and tilt shots characterize vertical ones relatively. Tracking is simply shifting closer or further the object with physical change in location of the camera, but zooming is just changing of focal length.

Take an example, when shooting a cycling tour, I stood sometimes on road side to capture by following the group of bicyclers. This technique was called panning. Nevertheless, I also sat on a motorbike and travelled side-by-side with them with crabbing technique.

2.3 Postproduction

2.3.1 Ingest To Postproduction

Obviously, videos need to be edited on a computer, so that, before starting editing, all materials need to be moved from storage places to computers. With video stored in camera body memory, they can be transferred directly via a cable which has one end plugged into the output portal of the camera and the other end connects with the USB portal of PC. With memory cards, there is another way of conveyance which is much more flexible. Nowadays, all most PCs have a memory card slot which support medium-size memory cards. Another tool to replace a cable is a memory card reader which supports mostly all kind of memory cards.

The editing program was taken in use is Adobe Premiere CS5, a part of Adobe Creative Suite. If the videos were captured with cassette camera, materials were stored in tapes; Adobe Premiere would be needed to transfer them to computer before the editor started working on them.

2.3.2 Assets Management

With a lot of files, a logical structure of material management would save time whenever I tried to locate the videos. Firstly, they were divided so that each topic (final video) had its own folder. Inside the folder, there would be four subfolders for script writing, videos, audio and exported movie clips (see figure 5).

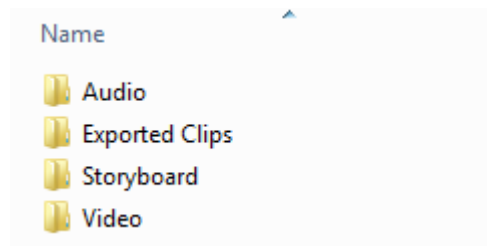


Figure 5. Structure of folders

Figure 2 illustrated the skeleton of the file locations. As the names have indicated the content of each compact, outline and description of the destinations can be found without any trouble in Storyboard. After filmed videos were moved to computer, they were briefly reviewed once in order to clarify the good ones which would be used as editing materials and stored in Video. Together with reading storyboard, watching videos before editing reminded me of the conformation of individual movie clip. Besides, all additional sound and background music were gathered in Audio. Lastly, after-edited videos were located in Exported Clips; no matter if they were beta or final versions.

2.3.3 Editing and Rendering Optimize to Web

Adobe Premiere is known as a timeline-based editing software application. It is used by many professional and amateur film-makers to create video clips and movies with logical functionalities and outstanding features. There are several steps included to work with the program as below:

- Import videos, images and audio while editing

- Video and audio layers
- Trim video clips
- Timeline based editing
- Add a soundtrack
- Add caption
- Add logo and web link
- Add effects
- Add transitions
- Revisioning
- Dynamic overlays
- Rendering
- Exporting

All the purified video and audio materials were imported to the work space, and then dragged to the timeline, where they were handled by the editor. In Adobe Premiere, videos and audio were separated to independent layers for. The editor could cut and paste the video components in creative establishment to make them logical and exciting. According to the storyboard of each movie clip, the slices would be organized in the correct order.

In parallel with video arrangement, background music was added to one audio layer. The editor could regulate the length or speed of individual scenes to get well with the melody of the music. For instance, the speed of video might be increased, so that movement of objects in the video match with the rhythm of audio. Often, the client wanted to keep the original sound of the video together with the background loudness in order to actualize each clip beautifully. However, in some special scenes such as the traditional music performance of local villagers, the background music was muted to highlight the live music and the voice of singers.

When the basic steps of editing video and audio had been accomplished, the brochure was applied as a reference for caption to describe each destination concretely with noticeable sceneries or actions. Nowadays, copyright of media product has become one of the most considerable issues in media industry. Thereupon, ICT logo and website universal resource locator (URL) were inserted to the movie clips to mark up the copyright of the company on its products. Moreover, particular kinds of effects

were supplemented to smooth transition between slices of videos and/or images to the benefit of more exciting and attractive results. These effects can be abstracted from the library of Adobe Premiere or generated using specific software like Adobe After Effect.

Next, rendering was the process of calculating and combining the whole elements of a clip such as videos, audio files, text and effects. It meant that the more additional effects were applied, the longer rendering process lasts. It sometimes took several minutes to accomplish, while sometimes up to numerous days to finish rendering big video production. In this particular case, the movie clips were all short (2-7 minutes), hence, rendering time was just some minutes to achieve the output videos.

Exporting the output video was the final step to get required clips. In this phase, compression file format selection was extremely important since it makes up the quality of images. The purpose of the final product was determined how to choose settings for exported videos.

2.3.4 Compression

“Visual data in general and video in particular require large amount s of bandwidth and storage space” [6, 36]. Normally, uncompressed TV-resolution video has data rates of a few hundred Mbps up into Gbps depends on length of its. For video specified for the Web, large size is a really drawback point which causes long uploading, transferring and buffering time. Consequently, effective compression methods are obviously required to reduce redundancy in data. [6,36-41]

Basically, there are two types of compression, namely lossy and lossless compression. Their names reveal more or less their working functionality. With lossless compression, initial data is reconstructed so that result can be decompressed to exactly the same as original data. Drawback of this method is that compression ratio is small, which means data still remain large. By contrast, lossy compression provides high ratio of data reduction but quality of result will be declined, for instance, sharpness of images is inversely proportional with compression ratio.

2.3.5 Testing

Test Plan

Before getting the final products, there might be many trial versions for each video. These clips were passed to the client to organize tests with the purpose of appraising quality of them. The more careful the test plan was, the more accurate result could be received. Fundamentally, the significance of a test plan needed to involve the following issues:

- Test goal:
 - o to judge the quality of the video
 - quality of images
 - quality of audio
 - synchronization of images and sound
 - reliability
 - memorability
 - user-friendliness
 - satisfaction
 - o to give feedback to the editor to make better products
- Testing object: post-editing videos
- Testing user: the client and other people
 - o age: any age
 - o education background: no special requirement
 - o experience: no special requirement
- Testing tool: computer with media player
- Test report:
 - o Good features
 - o What needs to be fixed

With all clear requirements and methodology listed in the testing plan, testers who were related to the questioning process would feel it understandable and meaningful. Since the editor needed judgment and criticism to improve the quality of images and audio, both client and other audience should be involved to the experiment. To get the most efficient and objective opinions, the testers needed to assimilate perfectly the features of the videos.

Execute test cases

With the fixed scenario, the purpose of the test was to let people give their interpretation of the destinations from the videos. In addition, the quality of image technology, audio and synchronization of them were considered as well. It did not mean that videographer had to re-film when receiving negative feedback about the hand-shaking shots but the editor and the client would take all comments into account to implement the appearance of the clips as much as possible.

2.4 Distribution

The Internet has never had an opportunity to prove its power as much as during recent years with appearance and development of new technology devices, software and websites. Understanding the demand of people and researching about products and services they want to buy, plenty of companies have chosen online distribution as a publishing tool to promote their business. With busy traffic on the Internet, people can be attracted with good content, creative effects or funny products. For that reason, producers need to try their best not only to create high-quality product but also attractive advertisement.

Conceiving advantages of the Internet and its popularity, Indochina Charm Travel determined to construct a strong sitemap system by uploading their videos to Youtube – the largest online video-sharing platform where people can upload, view and share

movie clips, regardless it is short, long, professional and official products of big companies or just simply funny shots of any random person. Then ICT embeds those videos to its websites and shares them on its official Facebook page – the biggest social network nowadays. To sum up, connections between sites and site and of people with people is the key of success on the Internet for the persons who know how to get benefits from them.

3 Quality Measurements

The objective of this chapter is to let the reader understand the general quality measurement, and then to bring digital video quality into focus. Basically, the main idea of the chapter is to analyze what quality is and how to measure and manage the quality of a product or a service. It is a fact that a fixed definition of quality does not exist because there are a lot of discriminative ways to define the quality of a product or a service based on target users and purposes of using. For instance, one of my friends took a trip around Europe with her classmates. During the trip, they had a chance to try a lot of famous cuisines in many countries. All European people in the group really enjoyed the food with several kinds of cheese while all Asian ones could not eat them at all. In the case, it is hard to say if the food has good quality because of the differences in food culture. It seems to be unfair to let persons who have never tried cheese to judge quality of it. The more a product can fulfill expectation of users or customers, the higher quality it has, in this specific case, the food can satisfy the person who are familiar with cheese, so that it can be said to have a good quality.

Actually, the quality of every single product is made up by several elements such as equipment preparation and testing, transmission planning and network-dimensioning tasks, head-end quality assurance, in-service network monitoring, and client-based quality measurement [5,1]. Clarifying quality measurement of digital video for the web, a numerous issues are concerned depending on the wide range of uses. Relating to video for the web, quality measurements include the subjects which have been analyzed in previous chapters like recording equipment, script writing, video shooting, test plans, as well as the process of distribution and information that the movie clips carry.

This chapter aims to distinguish two aspects of a product: quality of service (QoS) and quality of Experience (QoE) to determine the quality of web-based videos. In the pursuance of evaluating the quality of the movie clips I have made, I also organized a survey to get the most sincere and objective comments from viewers about them.

3.1 Quality of Service

3.2.1 Definition

In recent years, quality of service (QoS) has become one of the major research topics in the field of communication network [9,1]. QoS refers to assessment of a product technically and functionally. Quality can be anything that customers require. For instance, a media product might be estimated for example through lifespan, functionality, features, and cost. It is especially important for the new generation Internet applications such as VoIP, video-on-demand and other consumer services.

With different products, QoS is assessed depending on their own disparate properties. For instance, network performance should consist of availability (uptime), bandwidth (throughput), latency (delay) and error rate. Talking about online multimedia applications like video, several elements need to be included to QoS scope besides network performance such as image quality (color and sharpness), synchronization between audio and video and ability to view in full screen. In general, QoS management involves three separate aspects: service product, service environment and service delivery as shown in figure 6 below.

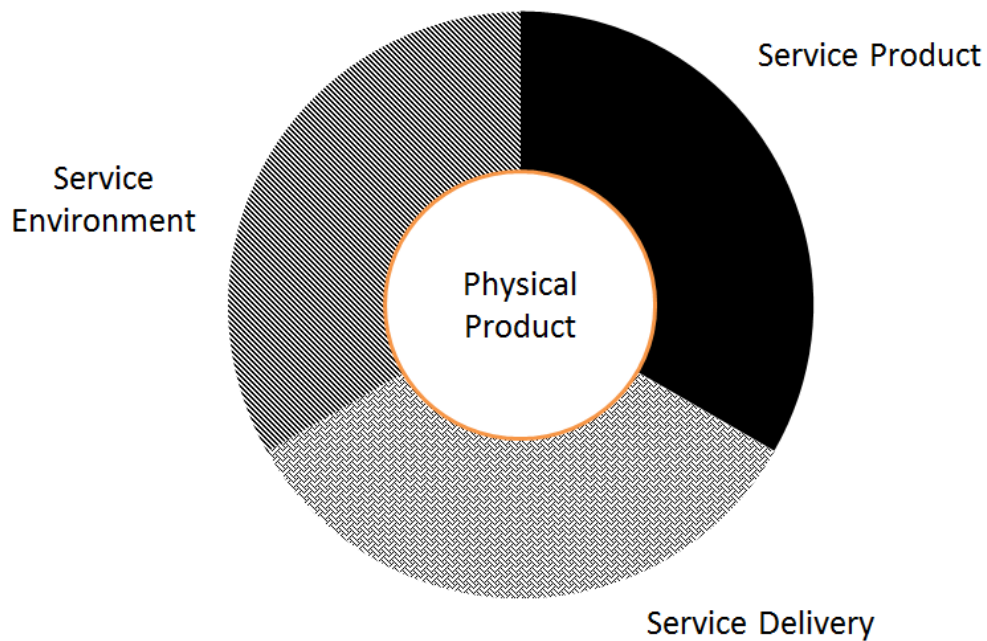


Figure 6. Components of Quality. Reprinted from Rust and Oliver [8,11]

Figure 6 demonstrates the three fundamental constituents of service quality. The core product, which can be tangible or intangible in product industries or service industries relatively, is located in the center of the diagram. Surroundings of the core product are the three components with equal size, which means that they all are equally important in term of service quality.

Service product refers the service that is designed to be delivered. In other words, it mentions the goal and comprises a lot features that the supplier expects to achieve to meet customer satisfaction [8,10-11]. For example, in promotion videos for tourism of Indochina Charm Travel, the service product is to provide reliable information beautifully about local travel destinations to people who want to visit Vietnam. Whether the client can produce clips which cover realistic information and charming images or not, it is a crucial goal when offering service.

Whenever a product or a service is dispensed, instead of existing alone, it always includes plenty of surroundings, namely *service environment* [8,11-12]. It is noticeable that customers can be affected in distinctive ways by one service environment, depending on what they like and their expectations. In Indochina Charm Travel

project, service environment can be customer support via several tools like reply by commenting directly on Youtube video channel, Facebook page for public questions or sending email for private requests.

Service delivery is a process of distributing products or services to customers. In this phase, timing is a very valuable element because the success or failure of a product may be terminated by the moment of its appearance on market. When customers receive relevant services which are worth being appreciated, the company will get referenced from them for other people and benefit from that.

Increment of service in both number and types to fulfill demands of customers creates competition between service providers. The customer will benefit from this in term of high quality service and low prices.

3.1.2 Quality of Service Measurement

According to specific characters of individual service, there are many different ways to measure and evaluate quality of service. The fact is that there are probably both visible goods and invisible service in one product. With non-physical products, it seems to be more challenging when there are no tangible attributes to measure. First of all, suppliers should always keep in mind their targets for final products.

In the video project of Indochina Charm Travel, two levels of service quality are defined. The first one is from the viewpoint of the client, clips must be able to be embedded to their website to. This action claims their copyright on the clips and increases their ranking on searching engine. On the other hands, it is easy for viewers to recognize and watch the videos when they visit the website. Secondly, target audiences are willing to view the videos on full screen with dynamic images and sound in fast speed of loading. For these purposes, Youtube is a reasonable choice of platform.

3.2 Quality of Experience

3.2.1 Definition

Quality of experience (QoE) refers to how users feel, perform and perceive the quality through usages of service and/or product. A product with good quality of service can still get negative feedback from end-users if it costs too much. For instance, I usually rent entire apartments when I go travelling. Reading reviews about the flat is an indispensable step. It happened sometimes that I found places received all positive reviews with good location, hospitable and friendly host, and budget price but there was no Internet or wifi in the flat when it was the required amenity of me. To that end, one product may get various range of QoE, depending on customer expectations.

Understanding user and /or customer requirements has been the most considerable task for every single manufacturers and/or service suppliers, which proposes a lot of investigation. The more a product can meet customer satisfaction, the higher quality of experience it has. If the aim of video is to bring the most realistic activities of local destinations to audiences and the viewers can get necessary and reliable information from them in user-friendly environment, it has already gained good judgment.

3.2.2 Measurement

In the phase of quality of experience, customer perceptions are an essential key. Service providers need to understand customer expectations and offer tools to get feedback from them. In my personal experience, when I visited a palace in the center of Warsaw, Poland, I was offered a survey form about how a tourist gets information about the city at reception desk. I would not be interested in it if they did not mention that there was a small gift after returning the feedback. The gift was just a little book magnet but worked effectively in the role of gathering information and opinions from

real visitors. This example demonstrates that the city tried to improve quality of service by gathering and analyzing quality of experience.

3.4 Quality Management

Quality management (QM) is a term which describes activities that contribute to optimal quality of products and operations. Everyone in the organization needs to be involved to QM due to quality of product development and/or service improvement.

There are several tasks are covered in term of QM as following:

- To collect, analyze and present information
- To find problems, understand them and remove their causes
- To assist in setting priorities and to choose the problems to be solved
- To find cause-and-effect connections
- To evaluate performance and development potential
- To facilitate control [11,20]

Basically, in quality management, the organization itself collects information from users, analyzes them in detail to find out problems and fix them. Besides, recognizing strong points to maintain and ameliorate them to get closer to user prospects is also the key of QM.

The action of implementing a product parameter has to be taken into account from the beginning of product or service building, which then saves a lot of time, energy and money. When every single employee understands the benefits of high quality product like decreasing the total cost and improving the brand of company, it will be much easier to handle the quality of small manufacturing processes.

There are a lot of lessons from real life to clarify the significance of QM. As we know, Apple has become one of the largest technology companies in the world. It actually has built up its own reliable and high brand in users' eyes. In 2010, Apple released iPhone 4 – the forth version of cellphone manufactured by Apple, which was welcomed by millions of consumers. However, there was one problem. If you cover the bottom-left corner of the phone and bridge the gap between the notches there with your

naked flesh, you could see some signal degradation. To fix it, Apple decided to give each user of iPhone 4 a free case in hope of preventing concerns about the antenna and signal problems. "We're not perfect, phones aren't perfect. But we want to make all our users happy," Steve Jobs said [13]. In this case, Apple had to pay quite a lot of money for its failure. If they were more careful in manufacturing, they might save money, time and their customers would be happier.

Through the case of Apple, there are two big lessons to be learnt from quality management point of view. The first one is that planning and trying to accomplish things correctly step by step is much more cost- and time-saving than fixing problems. It is the task of the producer to find the way to visualize all technical features the most understandable and efficient way.

On the other hand, problem-solving is still an imperative skill required from all employees regardless to their roles and profession. Like the way Steve Jobs dealt with the problem of iPhone, even though customers were not satisfied with the quality of the phone itself, they got comforted and appeased with the service. For that reason, after-sales and customer service are indispensable in any industry to update information about released products, customer feedback and markets with the intention of outlining short-term and long-term strategies of development.

Quality Management Tools

Nowadays, there are quite many tools to manage the quality of a product or a service. As a media engineering student, I prefer quality management tools which match media activities. Personally, I think PDCA (Plan, Do, Check and Act) one of the most effective and helpful quality management tools that can be applied in the processes of media products.



Figure 7. Plan – Do – Check – Act circle. Reprinted from [15,390-392]

As can be seen in figure 7, *PDCA* describes four steps of product manufacturing: plan, do, check and act. By following the rule of this tool, a lot of oversights during operation might be reduced. For example, to create a website, people first need to think of what the website is for and who its customers will be - *plan*. The next step after planning is designing and coding – *do*. After finishing the coding, the website will be tested – *check*. If errors occur, they will be fixed or changed and what is missing will be implemented – *act*. By working carefully in every step, producers have opportunities to fix errors immediately before delivery to customers.

In fact, one way to manage quality is to compare the product or service with other ones or the best one in the same branch. *Benchmarking* is an example that put this method into operation [16]. Nowadays, there is a big competition in media area. Technology has developed extremely fast, new media products are released day by day and services are getting higher quality to satisfy consumers. For instance, a telecommunication company always has to take a look at its competitors to create a reasonable promotional strategy.

3.3 Survey

3.3.1 Feedback Form

As mentioned above, the survey was provided to get the most subjective and constructive feedback from audience who have not visited Vietnam before. This was different from testing phase (chapter 2.3.5) because the client is not going to modify the contents or appearance of those videos after receiving the feedback.

By watching through the movie clips, they were provided a feedback form with some fixed questions about the contents, information that the videos carry, or quality of images and audio, as well as the loading speed of them. People could express their satisfaction with given options or freely leave their comments about anything related to the clips. The feedback form was as following:

Feedback form

Quality of Services

- 1 Does the page load quickly? Any errors?
- 2 Quality of images and color?
- 3 Can you see full-screen?
- 4 How is the audio?
- 5 Are video and audio synchronized?

Quality of Experiences

- 1 How did you like the length of each clip? Is it too long, too short or reasonable?
- 2 Do the movie clips provide enough information? Not?
- 3 Reliability of the movie clips

A Not at all

B Yes, but not very

C Very reliable

- 4 User-friendliness of the movie clips

A Not at all

B Yes, but not very

C Very user-friendly

5 Which clips did you like the most?

- A. Duong Lam Village
- B. Tho Ha Village
- C. Tay Phuong Pagoda
- D. Van Mieu
- E. Sword Lake in the morning
- F. A glimpse of Hanoi

6 The goal of those videos was to create the general imagination for the persons who plan to visit Vietnam or look for tourist information about Vietnam. What kind of information do you think that the video did not cover or what else would you like to add?

Others

1 Have you been in Vietnam before?

2 How do you know about Vietnam (through friends, internet, newspaper, etc.)?

3 Are you a potential tourist to Vietnam?

3.3.2 Feedback Summary

There were eleven persons involved to the survey in total. The videos are located on Youtube and linked to the official website of Inchochina Charm Travel (URL:<http://www.indochinacharmtravel.com/>). They can be very easily and quickly found. In general, the respondents seemed to like the idea of the clips to provide tourist information to people who want to inquire about Vietnam and become potential tourists of Vietnam.

It should be mentioned that when I inspected the reviews, a couple of videos were missing from the list provided due to a technical problem from the client, hence, they were not revised by survey participants. It also turned out that the clip of Tho Ha Village was repeated twice on the website. This showed that the client did not really

check-up the information on their website which probably causes reduced quality of service.

In terms of quality of service, the page was loaded quickly without any error and the videos were able to be viewed in full-screen. Even though the images were good looking in content, the quality of images was not very good with unsharp and shaking shots as the consequence of low-resolution camera and missing of tripod relatively. Background music was judged as good and well-synchronized with images, but there were some recommendations to replace the songs by instrumental music and keep the sounds of actual shots along the videos to make them more alive and vigorous.

Because of the length of each video, people expected to see more text of details about the destinations, activities and food. When judging the role of providing travel information, the movie clips were found to be quite reliable and user-friendly. The clip that impressed most of the participants was about Tho Ha Village, which covered both local people and images about real Western visitors involved in local activities such as rice paper making or traditional instrument playing.

To sum up, there are several ways to attract the attention of users or customers to a new product or service. To do that most efficiently, investment in time, effort and finance is indispensable. There are a lot of things that need to be improved in the video to become really professional and official promotion materials. Currently, I hope that people at least enjoy watching them, get positive general impression about my county and be excited to visit it in the near future as many of participants did mention in the feedback.

4 Conclusion

Nowadays, quality measurement and monitoring have become speedily common in our competitive market economy; thus, improving quality and increasing customer satisfaction are important goals in every kind of business. The successful invention of all products and services are the combination of human labor, not just a single person but the entire organization under intelligent and effective management.

Therefore, project management and quality management are always fundamental and significant in all types of projects. Personally, I think that management tasks are not only for the project manager but the whole team. When tasks are broken out and divided to persons in different roles to take responsibility depending on their strength and knowledge, people work on them most efficiently. This in turn helps to avoid wasting time and reduces the number of mistakes in the final product.

Besides, team work and sharing skills are clearly important for long-term practice and experience. Before coming to Finland, I was so nervous and lacked self-confident to work in a team due to culture and language differences. Nevertheless, being involved to many projects at school, I learned to communicate with people for working and managing to do my own task as a part of projects. Being a contributor means exposing personal understanding and apprehending new knowledge from others freely and quickly.

The purpose of this dissertation was to clarify the term of quality management. Good project management, includes stages of production and scheduling, as well as contributes to the quality of service. As a result, quality of service is reflected the in quality of experience, which means customer satisfaction. From the perspective of a Media Engineering student, reviews of customers on a product or a service are basically judgments on the entire production progress with planning, preparations, manufacturing, developing, testing and implementing.

In this project, I was lucky enough to have a chance for a job that I like and practice skills that I learnt from school in a real working environment. As has been mentioned, even though I understood the situation of the client, I was not so happy with the equipment that I had got during the working period. For the future, I am willing to

have another opportunity to return the places and make a couple of videos with a better quality camera just for comparison with what I have done this time. I believe that the achievement will be much better.

When all is said and done, spending time with Indochina Charm Travel for the project was a meaningful and valuable experience about team work, project and quality management for my future career that I really appreciate. Through investigation about quality management, I think that companies and/or organizations need to provide training to their employees about the importance of customer satisfaction for the success of their products. For long-term future, I believe that the thesis can be a useful handbook for the client in quality measurement and management, which helps to bring their products and services closer to customer expectations.

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