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# **Research** Article

# Adoption of New Technologies - Issues in Transition from Manual Camera to Digital Camera among Photo-Journalists

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# Abstract

As new technologies are spreading like wildfire, digitizing almost everything related to mankind, it becomes more pertinent to study this phenomenon in the media industry. This research focuses on the transition of adoptability among the photo-journalists from traditional manual still camera to the more advanced digital camera. The study focuses on the issues confronting the users during and after the transition. For that, the study chose the media industry, where the transition is actually happening. An empirical research was performed on photo-journalists in Tamil Nadu, by collecting data with the help of questionnaires, gauging their pre and post-facto opinions on both the manual and digital still cameras. The study analysed the different age and experience group of news photographers in the print media industry in the state. The study was done on aspects such as cost factor, quality, editing, resolution and technical factors of photograph. The study was elaborately discussed in the concepts of before and after Findings of this research helped reach a logical conclusion that the transition from manual to digital was more or less a smooth affair among photo-journalists in Tamil Nadu. It also suggests conducting media seminars and digital photography workshop to train the news photographers to equip themselves as better professionals.

Keywords: Digitizing, Manual Camera, Photo-Journalists etc.

## Introduction

Digitalisation was indeed a boon to photographers, thanks to the technological developments and advancements that boosted creativity and innovation in still photography. Though the first digital camera was invented in 1975 by an engineer named Steven Sasson with Eastman Kodak, it was commercially used only in 1988.

Dycam model 1 was the first digital camera to be marketed as Logitech Fotoman, which had several features like CCD image sensor even while storing pictures digitally. This apart, the camera could be directly connected to a computer for download purpose.

It was revolutionary change from the conventional photography during the black and white era to digital technology with value added features like adding brightness besides using colour correction techniques to give life to the digital image.

## **Digital Photography**

Digital photography is a form of photography that uses an array of electronic photo detectors to capture images focused by the lens as opposed to an exposure on photographic film. The captured image is then stored as a computer file which is ready for digital processing, viewing, digital publishing or printing.

Digital photography is one of the several forms of digital imaging. Digital images are also created by nonphotographic equipment such as computer tomography scanners and radio telescopes. Digital images can also be made by scanning conventional photographic images.

Until the advent of such technology, photographs were made by exposing light sensitive photographic film, and used chemical photographic processing to develop and stabilise the image. By contrast, digital photographs can be displayed, printed, stored, manipulated, transmitted, and archived using digital and computer techniques, without chemical processing.

# **Close-up View of Photography and Photo Journalists**

In a close-up view of photography and photo-journalism, one could understand the commitment of photojournalists in capturing some rare images risking their lives. While some veterans had shown their prowess in black and white era, some young photographers had contributed their mite during digitalization.

Simon Glik, a photographer was arrested in 2007 for recording a police arrest on his cellphone, but after filing

a federal lawsuit he won the case and even prompted the Obama administration to comment on the matter. Carlos Miller, a Miami journalist, recovered video of police officers arresting him after it was deleted from his camera. Throughout 2011 and 2012, images of Syrian protests were recorded and transmitted through the use of cellphones equipped with digital cameras.

Noted photo journalist Harry Miller, who was born in UK, created a history of the sorts capturing live images of accidents even while travelling in his ambassador car while he was serving in Indian Express in Madras.

His popular column 'Madras-a city of neglect' carried numerous pictures showing the sorry state of affairs of the laxity of civic officials. Readers not only appreciated his effort, they also made it a point to call him up and inform him about their civic problems in their localities. However, Harry Miller also looked at the positive side by filing stories on the good work done by the government. Incidentally, British-born photo journalist Harry Miller married a Tamil brahmin girl Revathy Parthasarathy and made Madras his home till he breathed his last in 1998.

It is interesting to note that a PG student in journalism had done his M. Phil at Madras University on the contributions made by British photo journalist Harry Miller to journalism during his life time in India more pertinently in Madras in the early 80s.

Meanwhile, David Ono, a US-based photojournalist recalled the shocking photo of a nine year old girl running naked during Vietnam War which was taken by Nick, a photographer who was working for Los Angeles Associated Press on June 8, 1972.

Interestingly, the rarest of the rare photos by Nick won him the coveted Pulitzer Prize for the photography which speaks volumes about the risk involved in taking this snapshot at the war field. Present day photographers should take a cue from this photographer. Vietnam War photographer Nick Ut reflected on iconic image 40 years later.

The Tamil Nadu government had nationalised his rare collections as a tribute to the veteran photo journalist. Anandan had photographs from the silent movie era till date right from production houses performing poojas for their new ventures to working stills at the shooting spots.

There is no word to explain the pivotal role played by photo-journalists through their live photos which would help the future generation to infer details on this creative art. In this digitalisation revolution, many young girls have made photography as a career.

#### Need for the Study

Manual camera is losing its grip in the print media industry, and also there is a significant growth of transition from manual camera to digital camera among photo-journalists. The manual camera makes press photographers to equipped professional, while digital camera teaches technical aspects of photography. Over all, the cost factor, resolution, storage of photos, photoediting and validity of photos shows different significant in manual and digital cameras. The study focused on the different age and experience group of the press photographers in the state.

## **Objectives of the Study**

The prime objective of the study is to understand the usage of digital and manual cameras among the Photo-Journalist in Tamil Nadu. And also the transition factor from old to new technologies.

The objective of the study is to find out the camera cost factor among the press photographers, handling of camera and using of filters among press photographers. And also the quality, validity, resolutions, and various factors that photographers perceives of the manual and digital camera.

# **Statements of the Problem**

Since the study focuses on different factors like that of usage of cameras, transition from manual camera to digital camera among photo-journalists in the state of Tamilnadu, the study entitled, "Adoption of new technologies- issues in transition from manual camera to digital camera among photo- journalists" is undertaken.

#### **Review of Literature**

The effect of photography on the world of literature had brought forth mixed opinions (as quoted in www.metapsychology.mentalhelp.net). Some, like Edgar Allan Poe who might be called an early adopter, had been wildly enthusiastic. Poe thought that the new medium was perhaps "the most remarkable achievement of modern science" and capable of "the most miraculous beauty". Others, such as Baudelaire, have been less encouraging, and even Roland Barthes, who has considered the issue more than most and whose own work Camera Lucida forms the comparative theme to Fox Talbot, considered it troublesome.

Brunet, a Professor of American Art and Literature at the University Paris Diderot, began his discussion with the reactions to photography and said (as quoted in www.metapsychology.mentalhelp.net) that even the foundational debate around what this new invention should be called. He note that in the very early years when there were still a number of techniques being developed, including the Daguerreotype, it was called sun-painting -- a term at once deeply romantic and rather condescending, as if it were a child's plaything. Fox Talbot, who feature large in Brunet's thesis, liked to suggest skiagraphy (to mean drawing with light), but it is John Herschel who credited with the term photography -and Brunet points out how this reflects the established print tradition.

Having named the phenomenon, and so being able to categorise it, the debate moved to defining what it was,

as well as what it was not. Fox Talbot, publishing in installments from 1844-6, made the first detailed exploration of the medium of photography. Looking at it theoretically and conceptually, his The Pencil of Nature serves as one of the primary texts for Brunet. For Brunet it was groundbreaking in that it examines what a new medium may be able to show rather than just imitate -- what was gualitatively different about photography -- and extraordinarily subtle in its argument. Much of the nineteenth and early twentieth century's photographers did not tend to write about what they did. And neither they nor their medium thought to be the equivalent of the written word. However, beginning in the 1920s and 1930s, and not unrelated to the emergence of documentary photography as a powerful social commentary, serious photographers became established and the photo-book and popular photo-essay became more common. And while the avant-garde work of Man Ray, the social documentary of Dorothea Lange were important, affecting and commented on, what Brunet called the "global rapprochement" of photography and literature was still some way off.

Brunet noted how photography has absorbed the Romantic notion of the self as the centre, and became the standard form of expression, of establishing self-identity, and preserving memory. How it, we could ask, that so many people saw that what they would rescue from a fire (after loved ones and animals) is the photo collection? How it that they have become so fundamental to our culture?

Photography was seen as a liberating tool, especially when it came within everyone's reach. From the Box Brownie to the Polaroid Instamatic to the seemingly ubiquitous cellphone camera it had liberated the user. It has become a very postmodern medium, infinitely variable and spanning the whole spectrum from disposable trash to high art. It had also become a theme within literature itself, forming crucial elements in the plot, but also teasing with the notion of memory.

Brunet did not end with some great overarching statement of grand theory such as photography becoming the new muse of literature. He warned against such judgements. He noted that amateur photography was still rather under-studied, and questions whether such functional photography as mail-order catalogues or police files of the current day are any more literary than those of the 1930s or 1980s. He feels he was only beginning to explore a relationship that was still vital and dynamic.

Brunet had made a very interesting contribution to the literature and raised a significant questions, especially concerning "or cravings for life and presence". It was written in an academic style, and may not be easily approachable for the casual reader, but for those students of the media it was an excellent and thoughtprovoking read.

Meanwhile Harper Stephen during 1959 had done a study on political photography, journalism and framing in

the digital age. In the study (as understood from http://hij.sagepub.com/content/17/2/214.refs) he said that journalists becoming more susceptible to the packaged visuals of politicians that image handlers pushing electronically in an attempt to circumvent and influence the mainstream media. These managed photos and videos communicate officialdom, voyeurism, and pseudo-events, ranging from routine government business to a personal side of political leaders. They designed to frame the subject in a positive light and to promote a strategic image. This article submits that demand for digital handouts of visuals, or "image bytes," stimulated institutional by economics and accommodation, including the constant need for Web content and journalists' eroding access to government officials. A profile of the image management of Prime Minister of Canada Stephen Harper illustrate the jockeying between politicians, PR staff, and journalists over news selection, pseudo-events, framing and gate keeping. Insights from 32 interviews with Canadian journalists and Conservative party insiders suggested that a two-tier media system was emerging between the small news operations that welcome digital handouts and the mainstream journalists who were opposed. Theoretical themes for international research included examining the implications of political image bytes such as the possible priming effect on journalists who were exposed to constant visual e-communication pushed by political offices

Meanwhile a study on film making, press photograph and architecture in Austria denoted that basing its findings on an ethnographic study, this article (published in http://ejc.sagepub.com/content/) examines the digital transformation of cultural production in film and video, press photography and architecture in Austria since the beginning of the 1990s. The focus is on cost structures of the means of production, occupational roles and working methods of the content creators. It is argued that the use of digital means of production allows a single person or a small enterprise to realize several or all production stages alone, removing the need to divide the labour. Yet, the increased autonomy connected to this universal approach must be regarded as a mixed blessing. It may imply not only easier entrance to the market for cultural workers, but also fiercer competition and precarious working conditions, especially for individual cultural entrepreneurs.

In another study (www.thefreelibrary.com), the Photojournalism Division (PJD) of the Photographic Society of America (PSA) has three very successful Study Groups currently operating. The Slide Study Group, under the direction of June Stone, FPSA, of Ely, NV, consists of 6 to 8 photographers, all current individual PSA members. A notebook containing members' slides, comment sheets, a score sheet, operating instructions, member biographies, and letters circulates from one member to the next, each member receiving the notebook two to four times each

year. Each member submits four slides per round with information regarding their slides and comments on the slides that the others have submitted. PSA membership is required and participation in the program provides an individual with membership in the Photojournalism Division. Digital Study Group 1 is under the Direction of John Larson of Burlington, IA. The study group members share images and exchange comments in much the same way as the slide study group, only the information is transmitted in digital format. The subject matter of the images in this group is open, whereas the Digital Study Group 2 is dedicated to Human Interest subjects. Group 2 is under the direction of Nancy Sams, APSA, EPSA, of Mesa, AZ. Participation in study groups is a great way to learn more about photo journalism and participants share a good camaraderie with great fun! All Directors are willing to expand the activity to form new groups if enough interest is generated.

In this study, the surveying of rock faces is generally a costly and time-consuming aspect of land measurement. Soon, however, surveying rock faces, bridges, riverbanks, tunnels and other three-dimensional highway areas may be as simple as an aerial flyover.

Researchers at CamSys, Inc., a designer and marketer of vision-based measurement systems, are developing a land-surveying system based on digital photography that will eliminate the need for manual measurements of irregular surfaces. "A rock face can't be surveyed from the air because you have to be able to see it from two different locations," said David Manthey, principal investigator at CamSys. "So when these points are manually surveyed someone has to occupy each point they want to measure, and it's very time consuming and costly."

The company announced phase II of its cutting-edge surveying technology project recently, after receiving a \$300,000 Small Business Innovation Research grant from the National Science Foundation. The 24-month contract was awarded last year to promote cost efficiency in highway design and maintenance.

The new method works in the following way, according to product documentation from camsys. The prototype system incorporates a superhigh-resolution Nikon/Kodak digital camera mounted on a theodolite with a laser range finder. A specially developed target is for calibrating the digital camera, used and the acquired digital images are transferred to а computer. The images are then processed by the innovative computer algorithm and photogrammetry software to produce the final 3D images of rock faces and other terrain that are essential to the design and maintenance of highways.

Testing of the Photogrammetric Data Acquisition and Processing System (pdaps) is being done in conjunction with the New York State Department of Transportation (nydot) on a rock slope next to a state highway. "In an upcoming project we'll be measuring a few sites nydot may want to use in the future. Or we may measure an area they need to survey anyway and then they'll use the information from the pdaps," Manthey said.

Results of feasibility tests yielded accuracy comparable to that of conventional methods of measurement. In fact, according to Manthey, the new technique surpasses the capabilities of computeraided digital image processing, such as the more laborintensive stereo plotters. In effect the new system will make available completely automatic processing of digital images of all highway surroundings.

According to the Photo Marketing Association, as quoted in *The 2012-2013 Leisure Market Research Handbook* (PMA, www.pmai.org), among digital camera owners, 61% make paper prints from their digital images. In all, consumers made about 15 billion prints each year. According to The NPD Group (www.npd.com), digital camera penetration reached 73% of U.S. households in 2010. Annual sales of digital cameras are approximately \$6 billion.

The photography industry has transitioned away from mainstream use of film to digital photography. Printmaking and photo storage have also changed, with many people converting their old print photos to digital format. Services are available that scan print photos and provide the images on a CD. Online photo storage services and myriad devices have helped the continued growth of digital photography.

The modest costs associated with digital photography have led to dramatic growth of photography as a leisure activity. There was a time when an individual who was interested in getting into the hobby of photography had quite an initial investment to make. To get a serious start, one would need to purchase a single-lens reflex (SLR) camera, darkroom equipment, and 35mm film, developing chemicals, photo paper, etc.

With digital photography, once the initial purchase of a quality digital camera and professional imaging software (such as Adobe Photoshop) are made, there is little to no expense required to maintain the hobby. Aside from the occasional prints perhaps, there are few other necessary costs to the hobby when approached from the digital side of things.

# **Research Methodology**

In this research, an attempt has been made to study an important and a critical aspect of the transition from manual still cameras (old technology) to the digital still cameras (new technology) in the adoption process. Thus the problem of varying degrees of relationship and differences that persist with the adoption has been explored in the study.

The objectives of the study necessitated measuring the influence of the demographic variables such as age and experience of the photojournalists of their perception to the adoption from manual camera to the digital camera.

# **Research Questions**

The objective of the study requires answers for certain research problems mooted in the study. To enable the investigator, to understand the questions raised based on relevant review of literature, the following research questions are framed. They are factors related to the use of manual and digital cameras in the transition process.

- Is there any relationship between the age of photojournalist and transition from manual camera to digital camera?
- Is there any relationship between the experience of photo-journalist and transition from manual camera to digital camera?
- Is there any difference in perception between the age of the respondents before the introduction of digital camera?
- Is there any difference in perception between the experience of the respondents before the introduction of digital camera?
- Is there any difference in perception between the age of the respondents and after the introduction of digital camera?
- Is there any difference in perception between the experience of the respondents and after the introduction of digital camera?
- Is there any difference between the respondents before and after the introduction of digital camera?

## **Selection of Sample**

The sample for the present study constitutes photojournalists working for the print media in the state of Tamil Nadu. The researcher adopted a multi-stage sampling technique to identify the respondents to be included in the sample for the present investigation.

The investigator visited all these five centres and distributed 150 questionnaires to the respondents. However, the investigator received around 93 completed questionnaires from the respondents. The incomplete questionnaires were excluded from the sample for the study and adhering to this procedure, the number of questionnaires which are included in the final study with complete data, numbered 89.

## **Item Pool**

To understand the transition between the manual to digital still camera, the researcher listed 22 items which are related to various aspects of the experiences undergone by the photojournalists during the transition from the manual to digital mode. Hence, a parallel before-and-after procedure was thought it to be right with adopting the YES/NO type of Guttman's scale. These items were included on the basis of interaction with a cross-section of photojournalists with different age and experience. These items were constructed into statements to be included in the questionnaire with both

negative and positive aspects pertaining to the transition from manual to digital mode. This will enable to maintain an internal consistency for the instrument adopted and prevent mechanical answering.

# Findings

This chapter presents the result of the analysis of the data. The first section of this chapter present the result of correlation showing the relationship between the independent variables namely experience and age of the respondents and the adoptability between manual cameras to digital camera.

The second section presents the result of that test of "ANOVA" showing difference in perception between age of the respondents before and after the introduction of digital camera. Similarly there is a difference in perception between the experience of respondents, before and after the introduction of digital camera.

Third section presents the results of paired sample 'T' test (Though the sample for the study is a little larger than the prescribed limit) in order to find the difference in terms of the overall adaptability of the photo-journalist from manual camera to digital camera.

**Table: 1** Result of the correlation between the age of thephoto-journalist and the transition from manual camerato digital camera (before and after) is presented below.

| Age       | Number | Correlation | Significant |
|-----------|--------|-------------|-------------|
| 0- 30     | 58     | 0.196       | NS          |
| 30-40     | 23     | -0.287      | NS          |
| 40- Above | 8      | 0.242       | NS          |

The table, above indicates that correlation value is low and by enlarge except the age group of 30 to 40 years, where negative correlation of -.287 is observed. Hence it can be observed that the transition in terms of before and after the introduction of the manual camera is smooth with those below 30 years of age and above 40 years of age. However, there is a very little reservation in the process of transition has been observed in the age group of 30 and 40.

**Table: 2** Result of the correlation between the experience

 of the photo-journalist and transition from manual

camera to digital camera (before and after) is presented below

| Experience      | Number | Correlation | Significant |  |
|-----------------|--------|-------------|-------------|--|
| 1-5 years       | 53     | 0.242       | NS          |  |
| 5-10 years      | 23     | -0.322      | NS          |  |
| 10- Above years | 8      | -0.226      | NS          |  |

From the table above the correlation value is low by enlarge except the experience group 05-10 and 10 years and above where negative correlation of -.322 and -.226

1198 | Int. J. of Multidisciplinary and Current research, Nov/Dec 2014

are observed. Hence it can be inferred that the transition in terms of before and after the introduction of manual camera is smooth with those are young and the adaptability had some reservations amongst those with 5 years of experiences and above.

**Table: 3** ANOVA for before (Age wise) Results of one wayanalysis of variance showing the effect of the age of therespondents (photo-journalist) on the perception of themanual camera (before) is given below

|              |           | Sum of<br>Squares | DF    | Mean<br>Square | F     | Sig. |
|--------------|-----------|-------------------|-------|----------------|-------|------|
| Betw<br>Gro  |           | 3.444             | 2     | 1.722          | 0.528 | Ns   |
| Within       | Groups    | 280.556           | 86    | 3.262          |       |      |
| То           | tal       | 284               | 88    |                |       |      |
|              |           |                   |       |                |       |      |
| Before Score |           | Mean              | S.D   |                | No.   |      |
|              | 0-        | 30                | 10.93 | 1.8            |       | 58   |
| Age          | Age 30-40 |                   | 10.96 | 1.87           | 1.87  |      |
| 40 & a       |           | above             | 11.63 | 1.69           |       | 8    |
| Total        |           | 11                | 1.8   |                | 89    |      |

The table projects the differences in perception where different age group of photo-journalists towards the manual camera is not significant. However the mean values of the age group of below 30 (M= 10.93) the mean value of age group of 30 and 40 (M= 10.96) the mean value of the age group of 40 and above (M= 11.63) shows the slight increase on the part of those above the age group of 30 when compare to youngsters. Hence it can be inferred that there is no difference in handling of manual cameras among the different age groups of photo-journalist.

Table: 4 ANOVA for before (Experience wise) Results of one way analysis of variance showing the effect of experience of the respondents (photo-journalist) on the perception of manual camera (before) is shown below

|                   | Sum of<br>Squares | DF                | Mean<br>Square | F              | Sig.  |
|-------------------|-------------------|-------------------|----------------|----------------|-------|
| Between<br>Groups |                   | Sum of<br>Squares | df             | Mean<br>Square | F     |
| -                 | Between<br>Groups | 1.533             | 2              | 0.766          | 0.233 |
| Total             | Within<br>Groups  | 282.467           | 86             | 3.285          |       |
| Before Score      |                   |                   | Mean           | S.D            | No.   |
| :                 |                   | 5                 | 10.92          | 1.86           | 53    |
| Experience        | 5-10              |                   | 11.00          | 1.65           | 23    |
|                   | 10 & above        |                   | 11.31          | 1.89           | 13    |
| Total             |                   |                   | 11.00          | 11.00          | 1.80  |

The table projects the difference in perception, difference in experience group of photo-journalists towards the manual camera is not significant. However the mean values of the experience between 1 to 5 years (M= 10.92) the mean value of experience between 5 to 10 years (M= 11.00), the mean value of 10 of years' experience and above (M=11.31) shows increasing adaptability towards the manual camera. Hence it can be inferred that there is a smooth handling of manual camera among the different experience group among photo-journalists.

**Table: 5** ANOVA for after (Age wise) The results of one way analysis of variance showing the effect of the age of respondents (Photo journalists) on the perception of the digital camera (After) as presented below

|                   | Sum of<br>Squares | DF    | Mean<br>Square | F   | Sig. |
|-------------------|-------------------|-------|----------------|-----|------|
|                   | Sum of<br>Squares | df    | Mean<br>Square | F   | Sig. |
| Between<br>Groups | 4.430             | 2     | 2.215 .495     |     | Ns   |
| Within<br>Groups  | 385.098           | 86    | 4.478          |     |      |
| Total             | 389.528           | 88    | Total          |     |      |
| Afte              | r Score           | Mean  | S.D            | No. |      |
|                   | 0-30              | 11.64 | 2.17           |     | 58   |
| Age               | 30-40             | 12.09 | 9 2.11         |     | 23   |
|                   | 40 & above 11.38  |       | 1.69           |     | 8    |
| TC                | DTAL              | 11.73 | 2.1 89         |     | 89   |

The Table projects the difference in perception between the age group of photo journalists towards the digital camera which is not significant. However the mean values of below 30 (m= 11.64), the mean values of the age group between 30to40 (M= 12.09), and the mean values of the age group 40 and above (M=11.8), shows that the age group of below 30 and 30 to 40 are more adept with the changing digital scenario when compared to those with 40 as of age and above. Hence it can be inferred that below 30 years are very quick to the handling of digital camera, and between age group 30 to 40 there is a quick adaptability of handling digital camera.

The Table 6 projects the difference in perception among the different experience group of photo journalists towards the digital camera which is not significant. However the mean values of the experience between 1 to 5 years (M= 11.68) the mean value of experience between 5 to 10 years (M= 12.04.00), the mean value of 10 years' experience and above (M=11.38) shows the smooth tide now to the digital camera

1199 | Int. J. of Multidisciplinary and Current research, Nov/Dec 2014

amongst the age group of 5 to 10 years when compared to others. Hence it can be inferred that experience group of photo journalist between 5 to 10 years were quick to adopt the digital era.

**Table: 6** ANOVA for after (Experience wise) the results ofone way analysis of variance showing the effect of theexperience of respondents (Photo journalists) on theperception of the digital camera (After) are shown below

|                   | Sum of<br>Squares | DF | Mean<br>Square | F    | Sig. |
|-------------------|-------------------|----|----------------|------|------|
|                   | Sum of<br>Squares | df | Mean<br>Square | F    | Sig. |
| Between<br>Groups | 3.947             | 2  | 1.974          | 0.44 | Ns   |
| Within<br>Groups  | 385.581           | 86 | 4.483          |      |      |
| Total             | 389.528           | 88 |                |      |      |
|                   |                   |    |                |      |      |
| After Score       |                   | Me | ean            | S.D  | No.  |
|                   | 01-05             | 11 | .68            | 2.21 | 53   |
| Experience        | e 05-10           | 12 | .04            | 1.8  | 23   |
| ·                 | 10 &<br>above     | 11 | 11.38          |      | 13   |
| T                 | TOTAL             |    | .73            | 2.1  | 89   |

# Results f Paired 'T' TEST:

 
 Table 7: Showing the results of paired 'T' test for before and after scores

| Т     | Df         | Si               | g.                                 |
|-------|------------|------------------|------------------------------------|
| 2.560 | 88         | *                | :                                  |
| Me    | an         | Ν                | Std. Deviation                     |
| 11.0  | 000        | 89               | 1.7965                             |
| 11.7  | 303        | 89               | 2.1039                             |
|       | Me<br>11.0 | 2.560 88<br>Mean | 2.560 88 *<br>Mean N<br>11.0000 89 |

As can be seen from the table, the difference between the scores of the respondents towards the adoptability before and after is very significant. The table of means for before (Manual) is M=11.00, whereas the mean value for after (Digital) is M= 11.73. This shows that the photojournalists, immaterial of their age and experience, are inclined towards the Digital Photographic Technologies and the process of adoption is also smooth. Hence it can be inferred that immaterial of age and experience in digital photo technology has been accepted and the adoption process is smooth amongst the photojournalists.

# Discussion

Digital camera (new technology) was a smooth transition among Photo-Journalists. The majority of the age and

experience group were influenced of digital camera. While, capturing images in black and white, resolution and quality the press photographers strongly admit that film camera only can produce those features.

The majority of the respondents felt that digital camera is an advantage of transferring photos, editing images and user friendly. Whereas the respondents felt that film camera is a disadvantage of developing photos, manipulating images and strongly they admit that time factor is an de-merit of the press photography profession. The respondents have shown a quick adaptability to digital camera and influenced of it. While, the respondents also agreed that both film and digital camera can develop a press photographer as professional.

# Implications of the Study

This research conducted a scientific study on the issues in transition from old to new technology, in this case from a traditional manual film camera to digital camera, and has presented its findings and logical arguments in this dissertation. This study is perceived to have tremendous implications in a good lot of domains, as this is an era where technology is advancing with each passing day and digitization is revolutionizing almost every aspect of life.

It is a given that new technologies are being introduced in many fields and professionals are also adopting them. But, as any new technology has a set of advantages and disadvantages over its predecessor, the users face several issues during the transition. And it becomes highly critical to study and analyse the issues, if the organization implementing the change expects optimal results. This study and its findings can be of direct use to any organisation or group that is foreseeing the implementation of this digital transition in still camera. The organizations can take a cue from the findings of this study and understand the possible issues that they are bound to face while implanting the digital shift.

And, the organizations or the establishments can plan campaigns or organize necessary workshops and programmes after learning the issues before introducing the change to digital cameras.

This apart, the study is expected to add to the relevant literature and form a theoretical basis for researchers who wish to study digital transition, whatever the area of study may be. This study also provides cues to manufacturers of digital cameras to understand the issues that are faced by new users during the period of study (like cost and resolution factors as cited in the research findings) and help them advance the technology in the problem areas and reduce the manufacturing cost so that the digital transition will be a more smooth affair.

#### **Future Study**

 Similar study can be enlarged to include Video cameras, to study the transition from a normal video camera to high definition camera.

- This concept is also applicable to study the transition from manual editing (old technology) to latest Final cut pro editing technologies (new technology).
- And also the study is recommended for the transition of Mobile phone to smart phone cameras. The same type of concept and study can be done in the field of Cinema, TV Media, Telecommunication and Radio respectively.
- Future scholars who wish to explore in to the professional implications of the media technology may consider the issues interesting.

# Conclusion

The study reveals that there is a smooth transition from old to new technology. Immaterial of different age group and experience amongst photo-journalists they quickly adopted to the new technologies, especially with the digital camera, in spite of admitting that quality and higher resolution images can be produced only through film cameras.

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