Conference Paper

The Impact of Information Technology on Family Values Transformation

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Abstract

This research explains the impact of Contemporary Information Technology Application Progress (CITA-P), WhatsApp/WA application, in transforming the family values from face-to-face contact (Emotional and Personal Value or EPV) to non-personal contact (Pragmatic Value or PV). It uses quasi-experimental design conducted by pre-test, treatment, and post-test in *Hagen* lineage (HaL) as Experiment Group (EG). Then it compares by Control Group (CG) with the Limited-Treatment (L-T) by phone, Short Message Service/SMS, and Facebook/Fb in *Sumer* lineage (SuL). Data were collected by sending the Eid messages. Respondent consisted of HaL and SuL members. Contemporary treatment is manipulated by CITA-P at the HaL member. Findings showed that CITA-P has positive impact to transform the EPV toward PV, as indicated by significant increase in the larger IT-P score in the EG than the L-T effect in CG before and after implementing it.

Keywords: lineage, treatment, Whats App, transform, value

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Received: 09 April 2017
Accepted: 17 May 2017
Published: 12 June 2017

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the ICoSaPS Conference Committee.

1. Introduction

An information society is where the bulk of information stored by the humanity is kept, transformed, and transmitted in a universal digital form by means of certain devices; where nearly the whole world is linked by means of a unified information transmission network - the successor of the present Internet - capable of transmitting, at an adequate speed, all sets of information necessary for human activities; and where the majority of values created by humanity are contained in information.

Social interaction is built by direct and indirect interaction. The Contemporary Information Technology Application Progress (CITA-P) is colored and dominated by WhatsApp (WA) application in social interaction. WA should have positive contribution particularly to positive social interaction and social change. Unfortunately, there is no clear purpose of WA user members toward significant social change, especially on expected values, attitudes, and social behavior.

The WA application users can chat online, exchange photo, voice, and video with the other users. In addition, the users can also share something like file, gossip, information, and joke. The use of WA application has function that can replace the role of post office, post service provider agent, telecommunication service provider agent, or can transform from simple (rural or village) in the limited interaction toward complex interaction (urban or city). Moreover, it can also transform personal (face to face interaction) to impersonal communication (by using information and technology media) among the WA users, especially the lineage members. WA can also create the new (renew of the old friend, or the new friend) private or public social networking based on the job, school, or universities alumni similarities, etc.

2. Literature Review

A. WA Messenger (`https://perlek.blogspot.co.id`) is a cross-platform messaging application that allows us to exchange Short Message Service (SMS) with zero cost because WA Messenger uses the same internet data packets for email, web browsing, and others. WA Messenger Applications uses 3G or Wi-Fi connection for communication data. This application uses a mobile phone number that we use to interact with WA fellow users. By using WA, we can chat online, share files, exchange photos, voice, video and others.

B. Advantages and functions of WA (`https://perlek.blogspot.co.id`) are:

   1. The WA has a complete feature that can send a text, picture, video, voice, music, and GPS location via GPS hardware or Gmaps.
   2. The application is integrated into the system, like sms, which we can receive messages without having to open the application first.
   3. The application has a status message in the form of signs. These signs are red clock for loading in our HP Process; checkmark for the message sent to the network; double checkmark for the message sent to a friend chat; the red cross for the failed message.
   4. WA application has Broadcast and Group Chat facilities. By the broadcast facility, we can send a message to many users, whereas by using the Group chat facility, we can use it to send messages for fellow members of the community.
   5. The application does not require a login and loading contact / avatar, thus saving bandwidth usage.
   6. The application can be turned off, and it can be active if there is an incoming message. Therefore, they can save their battery.

C. Lineage

level of EPV CITA-P	Low level of EPV (PV)	High level of EPV
Wash Apps/WA	1 WA → PV (expected effect)	2 WA → EPV (limited effect)
L-T (nothing WA)	3 L-T → PV (interaction effect, et al)	4 L-T → EPV (natural effect)

Figure 1: The effect of the CITA-P on EPV level.

A number of related concepts and terms in the study of kinship, such as descent, descent group, lineage, affinity/affine, consanguinity/cognate and fictive kinship. Lineage is a group that can demonstrate their descent from a common ancestor or a direct line of descent from an ancestor [3]. A genetic lineage is a series of mutations which connect an ancestral genetic type (allele, haplotype, or haplogroup) to derivative type (`https://en.wikipedia.org`). There are likely five demographic groups within your credit union membership in 2013. Silent (aged 68 to 88), Baby Boomers (aged 49 to 67), Generation X (aged 34 to48), Generation Y (aged 19 to 33) and the new kids on the block, Generation Z (up to 18). Members of Generation Z are the first true mobile natives growing up in a world of smart phones, tablets and high-speed wireless Internet [9].

D. The impacts of information and new technologies on social interactions.

   The arrival of information technology (IT) applications at home or office, the personal computers (PC), Tablet (Tab), and the internet in everyday life colors the information society. These technologies do not create the transformations in society by themselves; they are designed and implemented by people in their social, economic, and technological contexts. Many people attempt to understand the different (topic of discussions and social interactions, social and cultural dimensions) impacts of information and new technologies [8].

E. There are three basic sociological theories of social change. They are evolutionary, functionalist, and conflict theories. Based on theoretical sociology used, or theories of social change used: evolutionary, revolutionary, or transformative change used by differentiation, integration, or conflict [5]; there is a tendency of transformation from simple toward complex society, from personal toward impersonal communication.

In this paper, the researcher formulates the assumption that there is no different effect between the two groups of CITA-P on the level of EPV. The effect possibilities of opportunities can be tested below.

The quadrants 1 and 2, as the quadrants where the researcher separates the respondents implementing the Contemporary Information Technology Application, where the

social interaction process built, beside colored by phone, short message service/sms, and Facebook/fb, are also dominated by the use of WhatsApp (WA). However, at the quadrant 3 and 4, they describe the social interaction process built only limited to phone, short message service/sms, and Facebook/fb treatment, or the social interaction process built only by use of the Limited-Treatment (L-T). In other words, there is no or zero Contemporary Information Technology Application, or no WA implementation. Considering the quadrants 1 and 2, we can explore the effect of WA on the experiment group. The result can be compared with the control group by L-T, as can be seen in quadrant 3 and 4. In quadrant 1, it can be seen the effect of the WA implementation on PV level. WA is the CITA-P treatment on the social interaction process. If there is more intense level of WA use, there will be a significant effect on PV level.

In quadrant 2, it can be seen the effect of WA on EPV. WA is implemented in this quadrant, but unfortunately it only has limited effect. Therefore, we need time to explore what happens in this condition.

In quadrant 3, it can be seen the effect of L-T on PV. L-T is the limitation of CITA-P treatment to social interaction process by Zero or nothing treatment. However, it can be described that there is PV. The external factors can be explored to know why the L-T has impact on PV; they perhaps include interaction, instrumentation, history, maturation effect, and others.

In quadrant 4, it can be seen the effect of L-T on EPV. In case of the limitation of CITA-P treatment to social interaction process (L-T), or caused by no WA effect, logically the result is EPV.

3. Method

This research used a quantitative method with a quasi-experimental design [1, 2], where the WA treatment was only implemented in an experimental group. The first design used was the Pretest-treatment-Post-test. The first design was compared with the second one, where the Pretest and Post-test were implemented on Eid al-Fitr messages by phone, short message service/sms, and Facebook/fb at the group as known by control group [4, 6]. The CITA-P treatment or the WA application (as intervention or manipulation) is only implemented in experiment group (HaL) or the quasi-experimental design was only conducted by pre-test, treatment, and post-test in *Hagen* lineage (HaL) or the experiment group (EG). Data were compared with the Limited-Treatment (L-T) by phone, short message service/sms, and Facebook/fb in *Sumer* lineage (SuL) as the control group (CG). Data were collected by sending the idul fitri messages. Respondent consisted of HaL and SuL members. Contemporary treatment is manipulated by CITA-P at the HaL member. The difference (change)

of the level of the family values is measured by the transformation from the face-to-face contact (Emotional and Personal value or EPV) to non-personal contact (pragmatic value or PV). The different score in experiment and control group would be interpreted as the WA effect. The external factors must be considered by researcher including the selection, attrition, instrumentation, maturation, and testing factors [7]. The data of eid al-Fitr 2016 messages were collected directly from the *Hagen* lineage (HaL) and *Sumer* lineage (SuL) members. The truth of data can be validated by using an internal validity. The data were analyzed by using an SPSS 10.

4. Finding and Discussion

Based on the data collected and analyzed, the researcher found the following results:

1. The result of L-T found 77 % on EPV level. In other words, no transformation plan fails, so there is no good transformation resulting from the absence of treatment.

2. There is an increase in the transformation of the family's value level from face-to-face contact (Emotional and Personal value or EPV) to non-personal contact (pragmatic value or PV) as indicated with the score before and after treatment in the quasi-experimental group and control group. However, the significant effect of WA resulting in the different EPV at pre-test is 61 % and it increases from 35% to 91% in post-test on PV in quasi-experimental group that has larger indication than the limited effect in control group (8%). Therefore, the WA application has positive effect on increasing the level of the families' values. In order to increase the level of the family values (EPV to PV), we need a new plan. As the success of the social interaction process, it must be arranged (designed) by the clear purpose of WA.

3. In this case, WA can be implemented, but EPV remains to be high. Any external factors related to the low effective treatment can be identified. Its limited effect indicates that they (75%) do not focus on or use intensively the WA), (75%) do not participate in CITA-P treatment, and (66%)do not know clearly the purpose of the WA), (72%) are drop-out from the quasi-experiment after the subjects are assigned for the intervention.

4. In this case, the L-T can be also implemented, but we still found the PV. Perhaps, it explains any external factors to be considered, namely the history effect, where 100 % respondents have used WA in another time by another person before. The interaction effect is where they meet other members or people. The maturation effect is found where they have much time to discuss about it. Also, any instrument limitation indicated the simple question in questionnaire that must be

answered by them. The author controls difficultly the environmental factor and the members constructing their own meaning.

5. Conclusion

Considering the research findings and discussion aforementioned, the following conclusions could be drawn:

1. In this case, the L-T can be implemented, but we still found the PV. It can be explained that there are some difficulties to detect the effect of external factors. In the next research, we need to explore the interaction effect, instrumentation, maturation, generation, a relevant social interaction process, or any external factors affecting before.

2. When we found the L-T and EPV levels, it is because the fail due to no clear positive purpose of the WA. So, the WA is not understood differently by family members like the treatment before.

3. When the WA can be implemented, EPV remains high. It is found in the members stating any form of technology and communication media including WA, can't replace the overall personal emotional function as well as that in interactive and direct involvement.

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