Personal Data Protection Paradox towards the Electronic Platform Engagement

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Abstract. Privacy paradox can be defined as the implication at the high intense interaction as the customers and market demand over the utilization of IT to provide online type of persona as the representative of certain people in the digital life while simultaneously protect their identities against potential threats but at opposite way lead to improper use of the system. Thus, this study want to explore the paradox exist in the process of protection the personal data in utilizing service or features in the electronic platform.

1. Introduction

Due to the advancement of the IT that has been shifted the way of individual thinking, surveys indicates that privacy is a major concern for citizens in the digital age but individuals often reveal personal information for relatively small rewards only to attract peer attention in a social network over the Internet, wherein this kind of inconsistencies between privacy behaviour and attitude lead to paradox in the privacy concept [1]. Meanwhile, the enactment of data privacy law still far from reality in Indonesia, due to several reasons such as lack concern among customers and ignorance on privacy behaviour, whereas the discussion on the draft of data privacy regulation already exist several years ago. At very least, the momentum has been gained to push the comprehensive regulation in term of personal data protection after regulation 20/2016 from Ministry of Communication and Informatics. There are also quite similar reason that hinder the innovation in the Indonesia, one of them is political will from legislative. Indonesia has the general law to protect personal data, such as UU ITE 11/2008 and various regulations in other sectors such as health, telecommunication, financial and employment, which follow 1945 constitution. Primarily, majority of legislative member prefer to protect their status quo in keeping the power balance in the next election rather than look at small fragment of complaint segment within the community. Thus, the continuous discussion about this topic in various location and segment should be encouraged to raise the awareness that can improve the understanding about privacy threats and the consequences that customers perceived, once this right has been violated.

Naturally, there is always a tendency to utilize every resource either through creating mutually interest regulation or rearrange certain structure to bring benefits in order to show the goodness of government performance and be understandable for the weaknesses such as formulating the regulation for own interest such as president threshold for the reason of electability in the second period. Indeed, those kinds of behaviour are common in the democratic system, especially quite intense in the first period. Surely, everybody realize the importance of knowledge while the ignorance is bliss, but there is what is called as motivated ignorance, as long as certain activity process lead them to their objective either through direct communication or multistage, it is proper to not learn particular valuable information especially in relation to the privacy threats that endanger the freedom of expression and...
speech. Actually, based on UU MPR, DPR, DPD and DPRD 17/2014, the citizen can present their aspiration and complaint directly to the legislative to do their task as the representation of citizen. The lack of protection become another obstacle to motivate the citizen to explore the possibilities to develop certain privacy related strategy wherein the administration often become the troublemaker in slowing the pace and validation process. After a while, the high percentage in the tax portion that company should pay as the compensation to initiate business in Indonesia also put greater pressure to new kind of idea.

Another reason is related to part of the Indonesian culture to forgive mistakes from the other easily. Recently, there is a news report on data leak of SIM card registration from detiknews [17] and the others, which then be clarified as there is no leak at all. Still, legislative has been form a working committee (Panja) to discuss the attempt to protect mobile customer data. Previously, Indonesian also got shocked by criminal activity was known as 'Mama Minta Pulsa (Mom Ask for Credit)' that also exploit the personal data in term of customer phone number by generating automatic SMS claimed to be mother's victim [18]. There are also cases of data leak in Bank Jombang [19], Bank Rakyat Indonesia [20] and many more than become almost routine reporting news in the mass media in Indonesia. Interestingly, the response from citizen and relevant authority to every case tend to be partial, such as concern on capturing the criminals, whereas, more important is to develop strategy to raise awareness level among customers to protect their own data independently. Of course, academician have a critical role in here to develop the communal interest by adding the best practice of privacy protection and explain the consequences of data leak, either in the class or seminar to encourage student and society to avoid the negligence in protecting their personal data when do transaction online, credit or any other transaction. Due to this reason, I guess, mostly Indonesian have optimism bias, in which they are inclined to believe that they only got lesser risk in negative experience compares to the others. Therefore, company often utilize response and conversion rate in portal to measure the satisfaction among customer while the process segmentation to attract them often involving the identification of means in the engagement. This study want to explore the relationship between privacy paradox and the means of engagement through using exploratory factor analysis (EFA) with principal component analysis (PCA) as its dilemma in the customers’ perception and business environment.

2. Literature Review
In the field of education, student engagement often defined as the level of attention, awareness, excitement, confidence, passion and enthusiasm shown by students as they are studying something or being taught by, which extends to the level of motivation they have to obtain certain knowledge. A world where all product system can be interacted with the user with more agile without the need to follow certain path or any prior knowledge, which beyond human grasp or imagination with overloaded information [2-6]. On the other hand, some product application can deliver its service while its resources in some other place with cloud computing or dividing its system resource to increase the others performance with virtualization [5]. This relates to the attempt to reduce IT investment and avoid failure in anticipate risk [7], as well as multiple communication occurred in some amount of time, effort and other related resources invested by both students and their institutions with a view to maximizing student experience and improving the development, outcomes, performance and institutional reputation. It is important to understand the human factors within the framework such as self-attitude, self-behavior and self-cognitive to help knowing the kind of action and response to incorporate with the technology as medium to learn or obtain various information [9]. There are four main determinants of success of an IT innovations, namely communication channels, the attribute of the innovations, the characteristic of the adopters and the social system [11], in which this study argue is not relevant anymore considering the changes of physical product to digital, the increases of availability and accessibility, the elimination of user manual, the implementation of universal design, ubiquitous computing, intelligent search engine, virtualization capabilities, the
movement of paradigm to service oriented architecture, agile development using framework or design languages, integration of IT management and many more.

Recent research [12] shows that even when consumers do not believe their data on social networks are safe, they have no plans to protect or exclude themselves. It is what we called as "privacy paradox", even most people know the importance but still they have the reluctance to discontinue it. So the big question is not relate to what people want to do or can to do, but what they actually do to protect their own personal data. Last reason is economy loss. Unfortunately, people always learn by experience and mistake, not by knowledge or asking the expert. As long as the loss can be understandable, there is always possibilities to repeat the same mistake again and again, though with the different context. We are willing to get small fragment in the economic benefit by using particular platform or application, although we realize there is a big risk inside. It has the relation to the nature and the behaviour of the narcissism within the consumer as the reason cause this phenomenon. The scientific study [13] mentions that most people use social networks to satisfy basic psychological needs, such as the need to socialize, build and show their values and identities, and entertain themselves.

The community tends to reap the benefits of taking advantage of technology without thinking too much, while limiting its utilization carefully and profitably. The result is an accountable responsibility in which users are often obsessed with the possibility of tracking user searches and history on the Internet, without taking into account the privacy benefits due to the inherent ability to obtain confidential material without having to face another person nor requesting authorization from the people around them [14]. On the other hand, an innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption [11]. However, personal privacy is eroded as a result of technological development, with a deep and widely shared philosophy and it is seriously felt that scientists rarely examine them carefully on how there is difference result of response within various context [4].

3. Research Methodology
The researchers has distributed the questionnaires to 125 students in International Islamic University Malaysia. The survey has two sections consist of user demographic (age, sex, device, internet use, IT skill, online media and interest topic) and user characteristics [19] (relative advantage with 10 items, compatibility, complexity, trialability and observability with 5 items). It has been used 7 likert scale agreement level with radio button to make ease respondents choosing the proper answer. In this study, theory of diffusion of innovation [11] has been used to identify the notion of privacy paradox in which people commonly neglecting the importance of personal data over small benefits obtained in the computer networks to find relevant article or accurate answer towards their question in religion. Therefore, the analysis used principal component analysis (PCA) to develop a small set of variables as principal factors to check the whether the trend changes or paradigm shift in the digital life cause the phase of knowledge, persuasion, decision and confirmation still relevant in determining the flow of adoption of certain product or service, which tailor to step by step process. It also can help the process of understanding the nature of privacy paradox in response to the principal reasons that make customer prefer to select certain type of information source over the others and the factor that influence the decision of customer to maintain the communication or tolerance to certain digital activity as the initial stage to develop means of engagement theory.

| Relative Advantages          | Compatibility | Complexity | Trialability | Observability |
|-----------------------------|---------------|------------|--------------|---------------|
| 1 Understanding (RA1)       | 1 Habit (CB1) | 1 Difficulty (CP1) | 1 Opportunity (TR1) | 1 Mass People (OB1) |
| 2 Various information (RA2) | 2 Learning (CB2) | 2 Language (CP2) | 2 Satisfactory (TR2) | 2 Experience (OB2) |
| 3 Eliminate doubt (RA3)     | 3 Style (CB3) | 3 Search (CP3) | 3 Multiple Medium | 3 Educational (OB3) |
| 4 Different opinions (RA4)  | 4 Approach (CB3) | 4 Confusion (CP4) | 4 Relies (OB4) | 4 Relatives (OB5) |
| 5 Information Validation (RA5)| 4 Environment | 5 Learning Issue (CP5) | 5 Behavior (OB5) |               |
| 6 Iman (RA6)                |               |            |              |               |
4. Varimax Kaizer Normalization

The scree plot in the figure 1 helps to visualize the maximum number of important components, in which confirms the choice of eight components in PCA. The number of eigenvalues more than 1 suggest the number of components to be taken into account, which the extraction of the components on the steep slope, big drop or elbow. Meanwhile, the components on the shallow slope contribute little to the solution. The last big drop occurs between the ninth and tenth components, so using the first eight components is one choice. Though, it is apparent that there are more than one breaks. Alternatively, six components also can be considered as well as the line of the graph starts to smooth up at that point. Based on random generated data from PA and rough estimation from scree plot, the range of components can be retained is 6-8, in which the final decision should be based on the research objective and literature review to avoid bias.

![Scree Plot](image)

**Fig. 1. Fracture of Total Variance**

Varimax rotation produce multiple group factors and criticize for being artificial but become the most common rotation to simplify the structure column of components by maximizing the squared loadings in each component as well the differences between high and low loadings on a particular component [8]. It has been used purposely to greatly facilitate the interpretability of the component. Table 5 show the loadings as the key output in PCA, which contains estimate of the correlations between each of variables and the components. The correlations of less than 0.3 or 0.4 are regarded as being trivial large, while the negative in such an instance are considered as trivial small. Based on the result, component 1 primarily a measure of CB2 (compatibility in learning style) but also turn up with increasing scores for other four CBs, TR1 and OB1. As each of these variables increase, so do the other six. As for the other components, the primary measurements have been highlighted that are large in magnitude for further interpretation based on the rule of thumb. However, this is just the pattern that exist in the data and no casual interferences should be made from the analysis.

|   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|---|-----|-----|-----|-----|-----|-----|-----|-----|
| RA1 | .254 | .170 | .501 | -.235 | .344 | .042 | -.118 | -.052 |
| RA2 | .164 | .311 | .510 | -.148 | -.001 | -.097 | -.480 | .025 |
values is close to 1.0,ream perspective. Thus, this initial step to  

dev means of engagement can help to understand the motivation behind the segmented and  

Customer have their own reasons to trust certain information source that provide information to them,  

5.  

examined data [10].  

A small values is less than 0.05 of the significance level shows that PCA may be useless with the  

results of the PCA might not be very useful. Meanwhile, BTS examined the hypothesis that correlation  

variance in the variables that can be caused by underlying factors. The high v  

show adequate result and 0.000 (BTS) signify accepted value. The KMO show the proportion of  

Conclusions  

Table 3. KMO and BTS  

| Bartlett’s Test of Sphericity | Approx. Chi-Square | Sig. |
|------------------------------|--------------------|------|
| RA3 .138 .006 .802 .089 .243 .014 .143 .052 | 1845.424 | .000 |
| RA4 .020 .050 .783 .013 .057 .101 .087 .019 | 435 | |
| RA5 .171 -.067 .751 .002 .110 .029 .251 .150 | |
| RA6 .114 .168 .392 .062 .059 .007 .652 .209 | |
| RA7 .104 .272 .421 -.146 .134 .007 .680 .009 | |
| RA8 .107 .148 .213 .028 .846 .127 .026 .100 | |
| RA9 .186 .107 .134 -.052 .829 .090 .027 .081 | |
| RA10 .186 .138 -.043 -.058 .555 -.023 .416 -.070 | |
| CB1 .723 .166 .165 -.004 .241 -.031 .043 -.013 | |
| CB2 .829 .103 .109 -.053 .160 .033 .046 .147 | |
| CB3 .797 .129 .210 -.021 .030 -.005 .150 .150 | |
| CB4 .808 .105 .003 -.078 .010 .190 -.005 .078 | |
| CB5 .639 .248 .081 -.079 .200 .372 -.150 .140 | |
| CP1 -.154 .229 .065 .516 .022 .453 .138 .215 | |
| CP2 -.171 -.029 .100 .573 .073 .271 .439 .202 | |
| CP3 -.001 -.167 -.050 .839 .017 .087 .050 -.147 | |
| CP4 .018 -.096 -.057 .784 -.038 .012 -.159 .363 | |
| CP5 -.085 -.129 -.208 .795 -.134 -.037 -.191 .087 | |
| TR1 .324 .288 -.008 -.160 .062 .46 -.074 .634 | |
| TR2 .093 .124 .159 -.235 .088 .190 -.094 .808 | |
| TR3 .239 .016 -.007 -.162 .169 .656 -.004 .239 | |
| TR4 .083 .042 .148 .193 -.041 .838 -.069 .115 | |
| TR5 -.055 .370 .027 -.178 .187 .624 .297 .145 | |
| OB1 .352 .672 .246 .004 -.084 .186 -.070 .035 | |
| OB2 .261 .589 .126 -.075 .221 .151 .251 .188 | |
| OB3 .024 .749 -.023 -.144 .239 .158 .031 .097 | |
| OB4 .167 .750 -.030 -.164 .308 -.094 -.111 .118 | |
| OB5 .148 .754 .024 -.006 -.073 -.074 .278 .016 | |

The table 2 shows two tests that indicate the suitability of data in PCA, which have 0.763 (KMO)  
show adequate result and 0.000 (BTS) signify accepted value. The KMO show the proportion of  
variance in the variables that can be caused by underlying factors. The high values is close to 1.0,  
which generally show that a PCA may be useful with your data. If the value is less than 0.60, the  
results of the PCA might not be very useful. Meanwhile, BTS examined the hypothesis that correlation  
as an identity matrix, which show that variables are not related and therefore are not suitable for PCA.  
A small values is less than 0.05 of the significance level shows that PCA may be useless with the  
examined data [10].  

5. Conclusion  

Customer have their own reasons to trust certain information source that provide information to them,  
which can be influenced by certain event and circumstances. There is always exception in the social  
community that can be called as outliers to the mainstream perspective. Thus, this initial step to  
develop means of engagement can help to understand the motivation behind the segmented and  
identified customers to engage certain product or service either through spontaneous, novelty, forceful,  
frightened, etc. There is an assumption that customer can adopt certain product even though they do  
not really hear before about the function from the provider or accept specific service despite having no
knowledge about their characteristics. This study indicate that some variables should be adjusted, either combined with other variable or add more to develop more comprehensive understanding, while it does not rule out the possibilities that mediating factor play essential role to shift the perspective of customer when observe or conduct trial activity. Paradoxically, customer might find out certain product deliver relative advantages, but it does not necessary indicate that they will adopt the product or vice versa. Nonetheless, this statement still as assumption that should be evaluated again to identify the exact mechanism of, which in this case, this study differentiate between adoption, acceptance, approval and agreement that influence by the degree of satisfaction, conversion, subscription, retention and acquisition. On the other hand, research reveal that certain factor such as lack of knowledge, opaque practice of institution, technological affordance of social media, the concept of networked privacy and acknowledgement of the existence of individual as several reasons that privacy paradox occurs.

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