The Influence of Radio in Enhancing Farmers' Perceptual Situation in Problem Solving To-Wards Insufficient of Information Delivery

Idris Ismail, Rosidayu Sabran, Mohd Yahya Mohamed Ariffin

Abstract: ***Radio in the Agricultural Extension Services (AES) situational problem like Insufficient of information delivery, been viewed as not only helping farmers in acquiring of information, but should also be extended to create tendency for farmers to deal with informational interaction and be connected to the problem. For that reason, under structure governance reform such decentralisation, if radio need to be used in AES informational delivery process, it is expected to have an influence on farmers actual perception and opinion in minimizing the problem. Drawing upon Situational Theory Problem Solving (STOPS) as the framework, this study seeks to determine the role of radio in problem solving (RIPS)on perceptual situational variables such problem recognition, constraint recognition, involvement recognition and referent criterion towards solving insufficient of information delivery problem. A total of 400 farmers within AES in the "Rice Bowl" area of Northern, Malaysia participated in questionnaire. Data analysed using Structural Equation Modelling (SEM). The findings revealed that, this study mainly significance and support all the four hypothesised relationship proposed in the research conceptual model. Result shows that, RIPS plays important role in influencing farmers problem recognition, involvement recognition and referent criterion apart from reducing constraint of farmers. Therefore, RIPS now can be considered as being a joint element to public communication strategy as part of dealing and solving insufficient of information delivery effort for entire Malaysia AES.***

Keywords: Radio in Problem Solving (RIPS),Situational Theory of Problem Solving (STOPS),Insufficient of Information Delivery,Agricultural Extension Services (AES),Farmers

I. INTRODUCTION

Information delivery process in Agricultural Extension Services (AES) not only meant for farmers easy access. It rather act as being a major concern (Demiryuruk, 2010) and an essential factor in the AES practice (Adebayo & Oladele, 2012), for farmers to deal with situational problem like Insufficient of information delivery. In this regards, mainly through mass media for effective informational process between AES and farmers (Martini, Roshetko & Paramita, 2016), AES informational delivery strategy mandated that, along with farmers needs to have latest and useful information best suited their farm (Ansari & Sunetha, 2014), it is important for farmers to leverage on mass media such radio, in order to create tendency to deal with informational interaction and be connected to the AES situational problem.

In relation to that, Radio has been acclaimed to be the most widespread, trusted mass media (Kakade, 2013), for information access and enhancing their behaviour in AES situation (Mittal & Mehar,2016). Thus, in the AES' situational problem like insufficient of information delivery, beside radio is persistently seen as to help farmers in acquiring of information, it is also highly relied as an important mass mediathat makes farmers aware and connect with AES development (Chapman, Blench, Kranjac-Berisavljevic & zakariah, 2003). Particularly, radio should offer way of effective information delivery interaction, meant to replace the information diffusion and technology approach of AES, which most of the time emphasis on centralised informational process. Thus, it has to be decentralised(McQuail, 2010).

Similarly, in Malaysia' AES situation, radio triggered farmers attitudes which made them actively aware and interact in agriculture information program (Md Salleh, 2008). Although, information technology tools can certainly facilitate the AES informational process, however this media must not be viewed and taken as the replacement of radio, which still the most accepted and prominent as AES mass media (Ahmad Fahmi, Rosli, & Mohd Khairie, 2016). Generally, studies provide empirical evidence that, if radio need to be used through AES informational delivery process, it is expected to have an influence on farmers actual perception and opinion in minimizing the problem. Therefore, the role of radio in relation to this study, it is expected to have an influence on farmers perceptual situation in problem solving. It appears appropriate to put forward this research question of does RIPS influence farmers perceptual situation in solving nsufficient of information delivery problem?

Objective

This study argued the response of Malaysian paddy farmers could be shaped as being an intervention of RIPS within AES situational problem such insufficient of information delivery. Specifically, this study is to determine the role of RIPS on perceptual situation variables such problem recognition, constraint recognition, involvement recognition and referent criterion of Situational Theory of Problem Solving (STOPS) on identified problem.

Revised Manuscript Received on May 28, 2019.
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II. LITERATURE REVIEW

Radio in Problem Solving (RIPS)

Hepworth (2004) described the relationship between information needs and information delivery. He explained that understanding the important "characteristics of individual's involved in the "interaction" with media used is crucial in order to respond to the information needs of an individual in a problematic situation.It consists of the usage of mass media including Radio (Monge & Contractor, 2003). It shows that, an farmers interaction through radio act as a platform for them to share their expertise regrading information requirements. Thus, AES informational situation that are shared on radio able to trigger farmers concerns, due to their aware ness about their AES information situation.

The role of radio in the situation of insufficient of information delivery been further empirically supported in developing countries. Radio been used to get sufficient information reach rural areas as part of promoting agriculture development, particularly work to deliver real time and quick information (Mohammad Reza & Hassan, 2010). In addition, it been considered as an appropriate for farmers because is often simpler, easier and requires less resources to use (Kakade, 2013). Similarly, in Malaysia, published studies like Md Salleh (2008); Md Salleh, Hayrol Azril, Muhamad Sham, and Nor Sabila (2010); Md Salleh, Sulaiman, Hayrol Azril, Mohd Shahwahid, Bahaman, Asnarulkhadi, and Siti Aisyah, (2011); Salleh and Kamolrat (2003) had been consistently argued the role of conventional media particularly radio and television as the most powerful mass media within agriculture world especially in AES. Specifically, radio significantly helps heightened farmer awareness about agriculture information program and process (Mohammad Reza & Hassan, 2010)

Moreover, in Malaysia AES setting, Md Salleh et al. (2010) pointed out the significant of radio in disseminating information has made AES reserved information slot in radio agriculture programs for farmers latest information access. In fact, Radio in Malaysia was established inconjunction with the Development and Agriculture Service (DAS) way back during the emergency period of 1948-1960, which responsible for rural development meant to provide public with entertainment and information. In fact Radio act as mass media medium to connect rural population, including the farmers with any government development especially on agriculture matters (Md Salleh, 2008). For that reason, this study appears to have renewed and adjusted focus on radio in addressing AES informational delivery as new arrangement. This new thinking has consequences for how AES and farmers should approach radio in the AES situation, Thus, radio are consistently given emphasis by scholars to deliver information to streamline between the information process and farmers perceptual situation.

Drawing from reviewed above, it shows that, both researchers and practitioners acknowledged the rationale for using radio in AES came from an understanding that radio is an excellent, cost-effective means of sharing knowledge, building awareness, facilitating interaction and supporting farmers opinion related to information delivery situation. It is generally agreed that, radio usage not only specifically delivery information, but should also covers interaction of farmers in AES situation. Md Salleh et al. (2010) and Md Salleh et al. (2011), argued, in Malaysia, radio still powerful and maintain it potential as the major mass media for AES information delivery process. Thus, creating a higher probability for Malaysian' farmers to engage with information delivery real situation. To support that, Zoheir et al. (2012), suggested it should provide an opportunity to better understand the use of mass media like radio to fulfill other needs of farmers, especially radio usage and farmers behavior (Muhammad Asif & Mumtaz, 2013) such as problem solving.

With the same token, RIPS in enhancing farmers information behavior, should be taken as part of the tool in helping farmers to deal with the AES problem. Therefore, whether RIPS influence the farmers perceptual situation variables towards Insufficient of information delivery, has need to be addressed. Drawing upon Kim and Grunig (2011) Situational Problem of Solving (STOPS) as the framework proposed, aside from looking at the perception of publics towards certain problems. Scholars contend that other possible significant antecedent factors of the independent variables should also be looked into (Turpin, 2013). Thus, the selected antecedent factors introduced in a study, is suggested to influence the perceptual situation variables towards the situational problem and better enhance within STOPS theoretical virtue.

Situational Theory of Problem Solving (STOPS)

Kim and Grunig (2011) introduced STOPS to further extend the theoretical lens of Situational Theory of Publics (STP). STP proposed by Grunig (1968) had been developed to explain and predict situational perception of public to their own situational problem. Hence, STP explain publics mixed perception which consists of problem recognition, constraint recognition and level of involvement that determine public response towards problem STOPS redefine and reinstate the variables of referent criterion as another variable explained pubic situational perception.

This brings an important message that, whether this approach attracting farmers to share their opinions and influencing their perceptual situational believed can be enhanced through radio used such providing platform for farmers active interaction that promote greater upward approach. This is also moved along with radio in the AES behavior approach, which accords the importance farmers capacity such self-development at the farmers level where radio as one of the elements used to put forward their thought about their information problem. It shows that, AES' information delivery processes, not only deals with the planning and management to overcome insufficient of information delivery, but also work hand in hand with the choice of mass media in order to bring about desired changes in farmers' behaviour and their farming informational situation (Leeuwis&Aarts, 2011). Similarly, study utilised STOPS, Ni & Kim (2009) indicated, public in identified situational problem, well versed with related

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information it is delivered through their preferred methods. The STOPS, has been utilised by many researchers, targeting the concept of public relations in addressing "Publics" in situational problem (Kim & Ni, 2013). The theory has been used to examined the predictive power of STOPS variables in public own situational problem and improve the problem solving ability through newly introduced concept (Ni & Kim, 2009). Thus,STOPS, become more general theory of communication and "problem solving". Research focusing on the same conceptual, introduced concept of online communication (Kim & Viber, 2012) and interpersonal communication (Choi & Kim, 2015) towards their focused situational problem. Therefore, this study introduced new concept of RIPS in an attempts to predict farmers' perceptual situation towards insufficient of information delivery within AES situational problem as a gap of knowledge within STOPS utilities conceptually and empirically.

RIPS on perceptual situation variables and hyphotheses

RIPS as new concept, found as relevantmmass media to influence farmers' interaction within AES to gather information and their informational problem (Christoplos, 2010), then influence them to be situationally to think about the problem. Specifically, the use of radio in creating farmers awareness, interest and more positive attitudes can be developed through mass media such radio (Md Salleh et al. 2011). Chapman et al. (2003), specifically found, radio usage can be extended to connect farmers with problems, concerns, and development needs in AES situation. This study, argues that farmers recognition towards insufficient of information delivery could be influenced by RIPS. Generally, people tend to recognise the problem when they able to perceive it through the usage of the right channel that well suited with the identified problem (Kim &Grunig, 2011), Thus this study proposed that.

H1 : The higher usage of RIPS the higher level of farmers' problem recognition.

Beside, triggers farmers' recognition of insufficient of information delivery, RIPS also recognise as to help farmers connect to jointly solve the problem. That hold true, farmers are found, ready to share their perception during information gathering process which later allows harmonious effort between AES institution and farmers in problem solving (Siti Azizah & Kliwon Hidayat, 2014). For that, Christoplos (2010) suggested farmers access to AES information and technologies can be achieved by facilitating their interaction and involvement of farmers with AES which could assist them participating in problematic situation through Radio. Thus this study views RIPS could influence farmers' personally think to connect to the problem as apposed by Grunig, (1997 :10) "the extent people connect themselves" . Therefore, this study contends that

H2: The higher usage of RIPS the higher farmers' involvement recognition.

This study concern, limitation of availability and usage of radio limits the farmers' access, and hence their usefulness to be connected to insufficient of information problem. This was argued by Che Su and Fauziah (2015) that the main factor that constraint female farmers to participate in village agriculture because of the lack of access to sufficient knowledge and information. This study believed, that could be because lack of information access from the right mass media especially radio. This was due to, situation where, mass media such radio which supposed to simultaneously help farmers gained information from AES (Demiryurek, 2006), were found not accessible by some farmers especially at the remote area where infrastructure and utilities were not efficient enough (Mwalukasa, 2013). It make sense that, STOPS posits that public at certain time having constraints in solving their problem, due to the information constrained (Kim &Grunig, 2011), in the same way, this study view RIPS as to help farmers' overcome limitation about problematic information, which influence their constraint to recognise and solve insufficient of information delivery problem. Thus this study proposed that

H3: The higher usage of RIPS the lower level of farmers' constraint recognition

Zakaria & Nagata (2010), pointed out, despite having options of communication means, radio still maintained as preferred tool and enhanced farmers interpersonal communication, in which influenced their information behaviours in dealing with AES informational process. This in line with STOPS, Kim and Grunig (2011), stated communicative action take various action formssuch as learning, giving and selecting of various information about the problem which starts from one's existing knowledge and triggers their efforts to do something about it. This study argues RIPS made farmers informed about insufficient of information delivery and subsequently influence their information activeness.

H4: The higher usage of RIPS the higher farmers' referent criterion.

Realising the importance of Radio to farmers and the correlations between Radio and information behavior. it makes sense to include the usage of RIPS aspect to be added into public communication perspectives by exploring relationships between the perceptual situation variables in the STOPS model. Therefore, this study proposed a conceptual framework addresses the concept of RIPS as an antecedent variablesto the STOPS model as an attempt to further understand farmers' response towards AES problem insufficient of information delivery in AES situation.

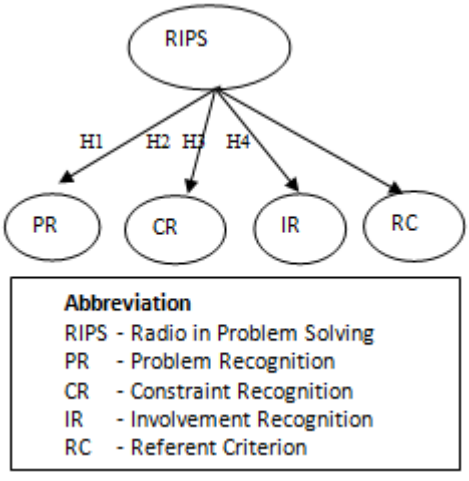

Fig. 1 Proposed Conceptual Framework

III. METHODS

In line with STOPS mainly explains publics's perception through statistical finding. This study applied the quantitative measure in determining RIPS on farmer's response in solving insufficient of information delivery. The participants in this study were 400 farmers living in the AES area under MADA administration, Kedah, Malaysia which maintains 57,635 registered farmers. They were recruited according to four regions (Perlis=68, Jitra=136, Pendang=96 and SarangSemut=100 through a stratified random sampling of farmers in extracting information-rich data from a diverse subject pool. Leary (1995) indicates that a stratified random sample will typically reflect the characteristics of the population as a whole and therefore meaningful data gathered. Self-administered survey were conducted in order to test the preceding hypotheses during October, 2018. Specifically, Self-administered survey ensures high response rate, gives the benefits of a degree of personal contact, targets the most appropriate sample precisely, and overcomes sample bias problem, if any (Collis & Hussey, 2003).

Demographic of Respondents

93.8 percent (N = 375) of the farmers were male, and 6.3 percent (N = 25) were female. The ages ranged from 30 to 70 years old above, with 11.5 percent (N = 46) were between 30 and 40 years, 30.2 percent (N = 121) were between 41 and 50, 34.0 percent (N = 136) were between 51 and 60, 20.8 percent (N = 83) were between 61 and 70, 3.5 percent (N 14) were 70 years above. Regarding qualification level, Majority 74.3 percent (N=297) were secondary qualification, 2.8 percent (N = 11) without qualification, 17.8 percent (N = 71) were of Primary education, and Higher qualification represent 5.4 percent (N 21). The paddy cultivation experience shows they been working on paddy field for substantive period with majority of farmers have between 16 and 20 years' experience 24.3 percent (N = 97). The demographic data of farmers revealed that majority of them in areas below 2 Ha (60.8 percent, N = 279). The ethnic composition, majority of the farmers were Malay (98.3 percent, N = 393), while 1.3 percent (N= 5) and 0.5 percent (N = 2) were Chinese and others race.

Measures

After introducing the problem, participants were instructed to answer questionnaire. The participants are asked to circle on of the 10 options on descending scale of agreement from (1) "strongly disagree" to (10) "strongly agree". The operational definition and questionnaire for RIPS in this study is built and developed through a review of literature in the same field concerning the role of Radio in AES agriculture development and specifically AES situational problem. The measure consisted of seven (7) items measuring farmers use and perceive of radio in day-to-day context of AES concerns to solve problems. RIPS is an added concept introduced by researcher as an intervention of radio providing help to solve problems. Prior to that, the theoretical framework of STOPS by Kim and Grunig (2011) underlying the questionnaire that captured all the information needed to answer the research questions. The recognition of insufficient of information delivery as a problem by publics measured using Five (5) items. Six (6) items used to measure the constraint recognition of publics. Five (5) items related to public involvement recognition and six (6) items measured public referent criterion on situational problem.

Analysis

Bhasah (2007) stated, data analysis was actually based on hypotheses or research questions set by researchers. This study data analysis related to research hypotheses which based on the research objectives. Scores from the new concept introduced provide values on the respondents items concerning the respondents' level of Radio in problem solving (RIPS). Thus, analysis employed and tested perceptual situation varibales of STOPS with the addition of RIPS as an antecedent variable to the original model. Next, Structural Equation Modeling (SEM) analysis using AMOS program was conducted to examine H1 to H4.

The structural equation analysis in this study was based on a two-step approaches as proposed by Hair, Black, Babin, Anderson and Tatham (2006). The first stage of the two-step approach starts with measurement model as a CFA model (Confirmatory Factor Analysis) determine its suitability to the data (goodness of fit). The second steps is to model these constructs into structural model is then estimated and analysed to see the overall fit of the model, and to evaluate its structural model. At this stage, the structural model's validity is studied using the same criteria as the measurement model. When models achieved a reasonable model-fit, the paths were interpreted to evaluate the hypotheses and research questions.

IV. RESULT

Reliability Analysis

Reliability of the measures in this study was first assessed using Cronbach's (1951) to measure the internal consistency. Kim and Grunig (2011), used Cronbach alpha to measure the reliability of questionnaire in STOPS. The Cronbach's Alpha must display a high degree of internal with value greater than the minimum of 0.70 (Hair, Black, Babin, Anderson &Tatham, 2010). Findings in Table 1 demonstrate that all values are more than 0.7. In addition, factor analysis (EFA) was performed and result in Table 2 shows all items loaded more than 0.5. Thus, the survey instrument is reliable to measure all the constructsand free from randomerror (Zainudin, 2015). These items were then used for further proceed with structural equation modelling analysis.

Table 1. Reliability Analysis

Construct	Items	Cronbach Alpha
RIPS	7	0.951
Problem Recognition	5	0.865
Constraint Recognition	6	0.839
Involvement Recognition	5	0.836
Referent Criterion	6	0.859

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Table. 2 KMO and Bartletts' Test

Construct	KMO	Bartlett's Test Sphericity	Factor of Loading
RIPS	0.954	3501.859	0.795–0.858
ProblemnRecognition	0.812	963.165	0.777-0.844
ConstraintRecognition	0.847	849.928	0.672–0.798
InvolvementRecognition	0.810	737.640	0.759–0.805
ReferentCriterion	0.865	957.382	0.710- 0.830

Structural Equation Model (SEM) Analysis

The investigation of Malaysian farmers perspectives towards Insufficient of information delivery based on the proposed relationships within the context of STOPS, which this is an attempt to see the impact of newly introduced concept RIPS which has been combined with STOP seek to answer the research questions, does radio usage affect farmers response in problem solving towards insufficient of information delivery issue? and fulfill the objectives of the study as in to determine whether radio usage affect the farmers towards solving insufficient of information delivery issue.

The evaluation of the structural model involves the examination of fitness index as per conducted in the first stage of the research model measurement (CFA). These were carried out as per discussed above, as to ensure that goodness of fit represent good value for fitness indexes, accepted estimation of path coefficient and no multicollinear. Thus, indexes value indicates corresponds between model and research data, which is RMSEA value = 0.073 , is less than 0.08 (Byrne 2001). CFI value = 0.94, corresponds to the value set by (Bentler 1990), which is greater than 0.90. For the value of Chi Square / Degree of Freedom (ChiSq) = 2.89 is less than 5.0 (Marsh &Hocevar 1985). In other words, These value corresponds to the structural equation model of the study. Thus, all the conditions of the fitness indexes were achieved.

The hypotheses proposed, dictate the relationship between the variables under consideration. To enable that, structural model testing were employed to test the hypotheses posed which represent the new concept to the original of STOPS include H1 to H4.As discussed earlier, based on table 3 it is ahown that all path are significant. H1 proposed the of RIPS on the recognition of insufficient of information delivery in AES as problem, where the higher problem recognition on farmers shows the higher presence of radio usage in helping famers to solve the problem. The findings revealed a significant positive effect, β .274 (p< .001). Result were consistent with previous study Chapman et al. (2003) where radio help create awareness thus influences their information behaviour (Kakade, 2013). This suggests that AES should pay attention to the use of Radio, as it is seen encouraged farmers to identify the AES situational and to deal with the problem of insufficient of information delivery.

H2 further investigate the effect of RIPS on the perception of constraint recognition, where the lower constraint farmers perceived shows the higher presence of radio usage in solving the problem. The analysis found a significant negative effect from the relationship on constraint recognition β -0.66 (p < .001). Thus, it shows, RIPS also play an important role in reducing constraints, where, farmers can overcome constraint recognition that can limit their ability to act on this insufficient of information delivery in AES.

Moreover, H3 proposed, the effect of between RIPS and involvement recognition., where it explain, the higher involvement of farmers in the problem, shows the presence of radio usage amongst them in solving the insufficient of information delivery in AES. The findings shows, a significant positive effect from the relationship, β.598 (p < .001). At the same time, farmers' involvement can also be ascertained, where RIPS help to enhance their engagement in solving this problem. In other words farmers activeness to take part in dealing with the problem that concerned them most through the higher usage of Radio.

Finally, H4 proposed, the effect between RIPS on the referent criterion, where thehigher referent criterion felt by farmers through the usage of radio, shows, the higher RIPS in helping them to deal with the situation. The analysis found, a significant positive effect from the relationship β 174 (p <.001). Thus, RIPS can add value to the existing reference criterion on this problem and farmers can further reveal their experience and knowledge about this problem which ultimately makes them triggered their perceptual situation. It appeared that farmers opted for radio to their own farming context were consistent with the Ihm, Pena, Cooper, Atouba, Shumate, Bello and Pittendrigh (2015) findings, beside information from AES farmers obviously opted over the availability of mass media especially radio which can increase knowledge and shaped their perception.

Table. 3 The Regression Path Coefficients and its significance value of the RIPS Model

Hx	Construct		Construct	Estimate	SE	CR	P Result
H1	PR	<---	RIPS	.274	.035	7.840	*** Significant
H2	CR	<---	RIPS	-0.66	.019	-8.736	*** Significant
H3	IR	<---	RIPS	.598	.049	12.091	*** Significant
H4	RC	<---	RIPS	.174	.035	4.971	*** Significant

In addition. Zainuddin (2015), pointed out, R^2 were used to further analysis the substantial relationship between variables as proposed by study research structural model. By looking at this value one could conclude that the

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model relationship between variables as in week, moderate or substantial. Cohen (1988) states R^2 square value above 0.26 as substantial.

In figure 2, R^2 square value indicated RIPS predicts varians of 0.27 on problem recognition, R^2 of 0.22 on constraint recognition, R^2 of 0.50 on involvement recognition and R^2 of 0.23 on referent criterion. Thus, it explain the relationship for the four relationship are at moderate to substantial level (Cohen 1988).

Finally, the findings for this study through H1, H2, H3 and H4, structural model testing are summarized in figure 2. This structural model, displays all structural relationships between RIPS models and perceptual situation variables of STOPS with their coefficients path and significance level. The figure also displays RIPS in the STOPS model which then considered as final structural model for this study.

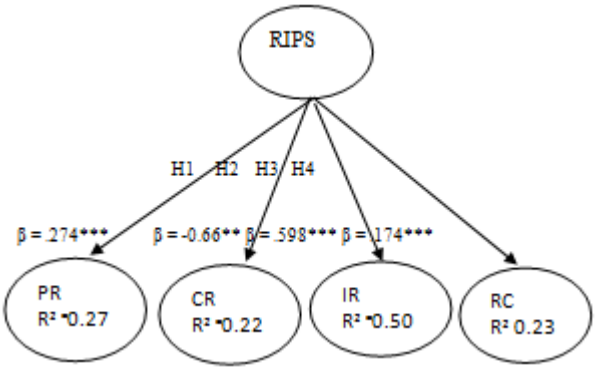

Fig. 2 Final Structural Model

V. DISCUSSION

This is new concept introduced in this study, as radio were found pertinent and relevant in AES environment to facilitate interaction between AES and to help farmers with information behaviour regarding farm informational problem. Thus, the original model of STOPS has been expanded by adding RIPS factors as an antecedent to the perceptual situation variables in STOPS. Finding seems consistent with what have been contended by scholars, that new introduced concept to be tested within STOPS utilities of perceptual situation variables to better enhanced the STOPS theoretical power (Turpin, 2013) to influence the perceptual situation variables in viewing the problem (Sha ,2008).

Move along with that concept, radio were consistently found as having dominant power that influenced farmers information behavior during AES informational process situation (Muhammad Asif & Mumtaz, 2013). Study also supported the idea of radio enables the concept of decentralization of AES through the interactive agriculture program, where it encouraged communication and immediate reaction from farmers to look at insufficient of information delivery in AES that affecting their lives and cultivation activities

RIPS was able to explain problem recognition supported by scholars, that farmers use radio in various ways to find information and solve problems faced by them as able to connect them with AES institution (Seidu, Andani, & Abdul-Malik, 2011). In this case, RIPS has made possible to increase of farmers problem recognition in AES situational problem. Specifically, radio is still significantly made Malaysian' farmers informed about information and subsequently problem with regards to information within AES (Ahmad Fahmi et al. 2016). The contribution of RIPS in reducing farmers constraint shows a great consistent negative relationship as been proposed by original model of STOPS, which considered as great contribution to new STOPS model. It shows, the communication sources assisted Malaysian farmers in their behavioural control related to their perception about farming difficulties, Thus, it would allow farmers to improve their information activeness in communicating about the problem (Kakade, 2013)

RIPS could also facilitate involvement of farmers as an active public and share their experience related to the problem through their access to radio in supporting to survey by FAO (2014) indicated, radio is the only medium can reach farmers at the same time regardless of the geographically distance. RIPS explained, farmers perceived involvement recognition towards solving insufficient of information delivery in AES through establishing two way communication is strongly corresponded with Joel and Lucy (2015), where farmers feedback through aired programs makes the program reciprocate to farmers opinion that covers huge listenership. In other words, RIPS potentially help farmers curb the insufficient of information delivery problem regardless of their location gap, illiterate and language barrier that affecting them personally, family and life.

The basis of reference criteria is determined by the previous situational factor, primaily from individual social contacts of past behavior related the same situation (Grunig, 1968). In AES situation, however, radio and interaction have made the existing knowledge and information can be further improve their capabilities in coping with the problem. Therefore, the readiness of farmers in solving insufficient of information delivery, obviously relied on their knowledge and effort can now be extended with the most appropriate mass media like RIPS that made them informed and connected to the situational problem Similarly, previous empirical research revealed radio has significantly further improved what they already have, hence guide them to deal the informational situation (Mohd Reza &MdSalleh, 2011).

The empirical analysis through path coefficient between for RIPS and perceptual situation variables, generally revealed RIPS as another justification as new concept to STOPS model in accordance to previous empirical study that utilised STOPS, proposed public communication sources such as modern communication Kim and Vibber, (2012) and interpersonal communication Choi and Kim, (2015), significantly affect public perceptual situation towards identified problem. It shows, the developmental role RIPS is credible in enhancing farmers information needs been extensively supported by scholars like Chapman et al (2003), Kakade (2013) and Md Salleh et al (2011) such problem solving in insufficient of information delivery.

Thus, RIPS as an antecedents factors to perceptual situation of STOPS, seen as desirable and ways that help to connect the farmers in solving the insufficient of information delivery problem Thus, radio seen as mass media to further influence farmers so that they can be eager to

seek more knowledge and information about insufficient of information delivery problem.

This strongly supported by STOPS original proposition, generally, the publics seek information as they become aware and recognized perceptual situation factors that connect them to solve a problem (Kim &Grunig, 2011). Therefore, the readiness of farmers towards solving in insufficient of information delivery, as an outcome between RIPS and perceptual situation variables, problem recognition, involvement recognition and constraint recognition.

Theoretically, this research extends RIPS a new factor on STOPS that goes beyond only acquiring information but problem solving by highlighting farmers situational interaction through Radio. In addition, the study proposed and provided empirical evidence of RIPS on insufficient of information delivery interaction, which causes the farmers' perceptual situation, eventually leads to their actual perception about the problem and do something about it. Thus made, this study as the first attempt to develop items to measure the proposed constructs of RIPS in the AES situation context and tested within STOPS utilities.

Practically, AES needs to take into account the role of the RIPS as well as ensure its function is moving towards contributing to assist farmers in solving their agricultural problems. This is due to, RIPS, being a joint element could be used as part of dealing and solving insufficient of information delivery effort for entire Malaysia'AES.

Although this study has significantly contributed to our understanding of farmers perceptual situation in problem solving towards insufficient of information delivery, There are some limitation that need to be highlighted and taken into account for future research. As public relations theory concerning publics, new concept to be tested within STOPS utilities could be considered as new antecedent variable in explaining public actual perception and behaviour in problem solving on their identified situational problem..

Further, this study takes a snapshot of problem solvers perceptual situation within the communication perspectives. It limits the problem solving as being influenced by RIPS on farmers perceptual situation which include their recognition of the problem, recognition of constraints, recognition of involvement and referent criterion. Future research should introduce other new concept such combining various methods of communicating information in explaining public perspectives during problematic situation.

In light of the limitation discussed, this study would suggest, the same conceptual could be replicated to include the actual opinion of other stakeholders in AES such AES agents or supplier in an attempt to gain wider picture of the perception and behaviour of public in AES environment towards insufficient of information delivery. AES agents and suppliers may also have its own perceptions of factors that can contribute to the solution of the insufficient of information delivery.

VI. CONCLUSION

This study laid out the conclusion on the findings of this study by discussing the farmers perceptual situation towards insufficient of information delivery being a contribution RIPS. this study introduced the role of RIPS in explaining problem concerning AES situation. This confirmed that the hypothesised were supported by the data in this study. The contribution of RIPS was also affirmed especially in enhancing farmers' level of perceptual situation towards the problem. The findings certainly, will encourage AES institution in Malaysia, to plan new strategies that increase the role of farmers in helping them to solve their own identified AES informational process and related problems. In addition, the role of RIPS can be incorporated as part of AES effort to encourage farmers to connect with information delivery system.

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