



RESEARCH MOTIVATION OF ACADEMICS: FRAMEWORK DEVELOPMENT FROM LITERATURE REVIEW

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ABSTRACT

The expectations of the reward system are much related to the participation of academic activities in universities. However, there are still not many academic activities having this expectation. Clearly other factors are at work. The expectation of personal effort leading to success is mentioned in Vroom's expectations theory (1964), however, this factor is particularly relevant in new contexts in recent years. Participation in academic activities takes place in the context of the organization and is the result of interaction between contextual and cognitive factors of stakeholders. That is the perceived of the organization's support. Academic motivation and new working patterns are explored using the literature and the combination of expectancy theory and social exchange theory. These impacts are reviewed and the research questions are proposed.

Key words: Academic motivation, framework development, expectancy theory, social exchange theory.



1. Introduction

Motivation and motivational studies are not a new topic but a central theme that has attracted many scientists. Through an overview, the work motivation of different people is different. Humphreys (2007) also affirmed the needs of each individual are different, even the needs of an individual also vary depending on each situation and each time. For officers and lecturers, the needs for personal development or self-needs are particularly different, for example the expectations for promotion between these people are different. For officers, it is the rank of professional, for lecturers, promotion is also a promotion (main lecturer, senior lecturer) or promotion of career title (associate professor, full professor). Because these different job characteristics will affect the workers' ability to respond, as well as the requirements from the organization, thereby leading to research motivation being impacted in different directions.

Many aspects of motivational theories that were born in a culture which may not be applicable in other cultures. Motivational theories are developed mostly in the West, mainly in the United States (USA) and Britain (Zhang, 2014). Theories can be based on Western cultural contexts so there will be limitations when applied in other parts of the world as in Eastern countries. Because of this, it is necessary to consider the theory of dynamics in different countries in the context of universities in those countries. In a developing country and science has not really developed like Vietnam, cultural contexts must be considered more carefully on studying the motivation of academic staff.

A number of studies on the motivation of scientific research of lecturers such as Tien (2000), Chen et al. (2006) have based on the results of other previous studies that expectancy component does not increase the prediction on motivation of employees (Galbraith & Cummings, 1967; Mitchell, 1974) and The low predictive power of expectancy, from Butler and Cantrell's (1989) perspective is due to social desirability leading to low variance of expectancy and measurement limitations such as confounding of expectancy with instrumentality (Tien, 2000). Therefore, it is necessary to ignore the expectancy factor in faculty's motivation model. However, with specific tasks and difficulties such as doing research of lecturers, it requires teachers to have confidence in their own ability to persistently overcome challenges in the process of doing research. Bailey (1999) emphasized that besides extrinsic motivation factors and intrinsic motivation factors, Self-efficacy is a necessary factor to study when studying the research motivation of academics. In the study of Hardré (2011), Lertputtarak (2008) also affirmed the role of self-efficacy on doing research. Self-efficacy is an important additional dimension to improving our understanding of the psychological characteristics of teachers. Self-efficacy has become a profoundly influential theoretical framework for monitoring human actions (Bailey, 1999).

Expectancy theory has been recognized as one of the most clearly concepts about personal motivation (Ferris, 1997). The expectancy model is an explanation of human behavioral awareness that makes people think, predict and act in their conditions. People continually evaluate their behavioral results and subjectively evaluate the likelihood that each action may lead to different results. This theory holds that the level of faculty motivation to do research will depend on the level of expectancy or belief that doing research will bring a certain outcome and the outcome has value for individuals. Therefore, the use of the expectancy theory predict to explain the motivational levels of different lecturers on doing research and the changes of individual motivation in the different cultural contexts. That means, the perception of the belief that doing research will bring a certain reward and the value of that reward to the individual lecturer is expected to adjust their motivation to do research.

Bandura (1982) also noted that people with low self-efficacy may be more difficult to accomplish than high self-efficacy people. Individuals who feel confident will work hardly and



persistently when having difficulties in work than those who doubt their abilities. On the other hand, individuals will have faith in their ability to fulfill their tasks if the environment is favorable for that activity to take place. Bandura (1977) argues that self-efficacy encompasses both personal ability and self-efficacy in the environment and organizational support. That means individual faculty expectations in relation to the organization's awareness of support are expected to adjust the faculty's motivation to do research. The awareness of the organizational support is an important additional dimension to improve our understanding of the psychological characteristics of academics. Moreover, they seem to be more motivated when they perceived organization support, attention and help from others. Therefore, social exchange theory has become a deeply influential framework for monitoring human actions.

2. Academic motivation: intrinsic and extrinsic factors

Theories of human motivation have been explored from a perspective of psychology and behavior. Defining motivation as a starting point for studying these theories. However, different researchers and psychologists have provided very different definitions of this term. It is important to choose a suitable definition for research, which determines how to measure motivation. Therefore, the author will summarize and discuss some definitions of motivation.

Motivation as a state of mind inside makes a person behave in a way to achieve the goals set out (James, 2011). In his opinion, motivation motivates a person to act and be behavioral reasons. He added that motivation is not about manipulation, but that it is an understanding of needs, making people take action. According to Butkus and Green (1999), motivation comes from the word "motive", meaning moving, urging or persuading to meet demand. Mol (1992) distinguishes between the term "motive" and "motivation". Movement is the performance of the task because of the remuneration, while the motivation is attributed to the involvement of a person in the job with excitement and enjoyment. Simply, "movement" is to force a person to perform a task, while "motivation" is a voluntary action and pleases with specific tasks (Robbins and Judge, 2008). Researchers emphasize that motivation is the basis for success, because participants are enjoyable and voluntary, not just to be paid. So La Motta (1995) defines motivation as the reason for personal achievements to implement the plan. Adler's (2008) view describes motivation as an instinctive motive, motivating people to act in a certain direction. He argued that propulsion as a force to overcome feelings of guilt. Lockwood (2005) identifies motivation that represent forces acting on the outside or inside a person so that he or she acts in a specific way. Baron (1983) determined motivation in his own way. He said that motivation is a set of processes that involve a kind of stimulating repulsive behavior and directing it to achieve certain goals. Many authors have considered motivation as a target-oriented behavior. This characteristic of motivation was also suggested by Kreitner and Kinicki (2001, p. 162), which gives the view that motivation represents "psychological processes that cause stimulation and voluntariness of actions." in a persistent way according to the target ".

It can be seen that motivation in general is basically related to moving elements, driving and promoting certain actions of people. Furthermore, the definitions show that there is a need for an invisible force to push people to perform behaviors (Bailey, 1999). When believing that employees are motivated naturally, an organization simply provides an environment for their motivation to be strengthened and improved (Baron, 1983). Meaning that an organization creates an environment and is a provider of a better working atmosphere, employees are more motivated to perform behaviors. Lawler (2003) notes that different theories ask why people love their work, why they seek special rewards and why they feel satisfied or dissatisfied with their work. Here are some questions that create a lot of assumptions and hypotheses to study. However, there are many



dimensions of motivation in an organization. A person motivated by those aspects may not necessarily encourage others, because there are many different factors that influence the different levels of employee motivation (La Motta, 2009).

Under the meaning of the process, in an organisational sense, motivation has been described as "the set of processes that arouses, directs, and maintains human behaviour toward attaining a goal" (Greenberg & Baron, 1993, p. 114). With this view, Mitchell (1997) define motivation as the processes that account for an individual's intensity, direction, and persistence of effort toward attaining a goal. This definition is based on human psychological transformation. With that concept, the motivation to do research can be understood as the process that account for an individual's intensity, direction, and persistence of effort toward attaining a goal.

An overview of the motivation studies of academic staff shows that there are some main issues as follows: Firstly, the intrinsic and extrinsic motivation division in faculty work, especially the motivation of lecturers on reasearching and teaching. It has been claimed in most studies, qualitatively or quantitatively, without dividing theoretically and separating intrinsic and extrinsic motivation in faculty work. Porter and Lawler (1968) were the first to classify intrinsic and extrinsic motivation. Most quantitative studies look at the motivation of lecturers without theoretical basis, nor conclusions about the difference between intrinsic and extrinsic rewards (Tien and Blackburn 1996). An overview of both intrinsic and extrinsic factors provided by Feldman and Paulsen (1999), details the motivation of faculty. Extrinsic rewards include payroll, advancement, remuneration, travel compensation, payment procedures and professional expenses, procedural assistance and benefits. The intrinsic motivators are wanting to be useful, consciously making a difference (such as seeing students grow), feeling satisfied when interacting with students, feeling through their skills. ability and knowledge are increased, there is an opportunity to learn and use skills and knowledge, and autonomy is independent (self-determination) (Feldman and Paulsen 1999, 74). Extrinsic factors and intrinsic factors appear to be very relevant to faculty motivation to conduct research (Xinyan Zhang, 2014).

Discussing payrolls compared to the contract system for lecturers, Bess (1998) emphasizes both the internal and contextual aspects of motivation to do research. That is contrary to the appearance of working habits of lecturers like this are not sustainable, reducing motivation and productivity of lecturers. Moreover, the interpretation of low motivations lies in the absence of necessary organizational context conditions, based on the basic support by tenured and thus creating strong motivation. Robinson (1996) details the five conditions of an organization that creates strong motivation: internal satisfaction from the work itself; quality evaluation system; career goals to get to the desired position; ability to cope with risks; and an environment of trust and goodwill. The bureaucratic management system lacking support and strict control can reduce the intrinsic motivation of lecturers. In short, documents show that intrinsic motivation is significant, it involves opportunities to learn and increase skills and knowledge. This is clearly related to the idea of this study, discussed below. The main issues are discussed in the proposed model. However, before a model can be considered, there are a number of closely related social and cultural topics discussed. The first is the social context in which research activities are taking place and the relationship of scholars with the academic activities themselves.

3. Academic context

As mentioned in the studies, bureaucratic management systems lacking support and tight control can reduce the intrinsic motivation of academics. In developing countries, have not felt sufficient support from the organizational environment such as the lack of trust and lack of goodwill of the organization. This reduces the belief that personal effort can lead to success.



While studies have confirmed that belief is an important factor that increases the motivation of individuals lecturers.

Especially in the context of higher education in very different countries, education in developing countries varies greatly from developed countries in the West. Firstly, the faculty capacity, especially on doing research, is not uniform and there is no common standard. Secondly, research conditions are not favorable, research tools have not been adequately provided compared with developed countries, which can lead to disadvantages when conducting research. This greatly influences the teacher's awareness of the possibility of success in the study if he or she tries to a certain degree.

As argued in the previous section, the research context shows that awareness of organizational support and personal lecturer responsibility with doing research is very important at universities, especially in the countries that are not developed or developing. Therefore, the main purpose of this study is to develop a research framework to understand how lecturers' cognitive processes are in their efforts to conduct research, including personal needs and context of the organization. So, the study was based on the expectancy theory of Vroom and social exchange theory. Specifically, focusing on clarifying and developing three structural elements of Vroom's expectation theory model. On the other hand, it is complementary to explaining the low motivation when needs are satisfied by social exchange theory. Expectancy theory and social exchange theory will be tested in a model to explain the relative importance of encouragement or reciprocity to the motivation of doing research.

4. A model of academic motivation

4.1. Expand Vroom's expectation theory

Motivational models are often divided between models that focus on an individual's internal attributes (demand theories) and models that focus on personal interactions with the environment (theory process). Expectancy theory is a process theory of motivation, whereby motivation is a function of personal awareness of the environment and the expectations that they form based on these perceptions. In an overview of organizational psychology including a number of motivational theories, we chose the expectancy theory as the framework for many reasons. First, the theory has been rigorously tested academically and has been shown to have strong support. Expectancy theory has been experimentally tested (Tien, 2000; Vansteenkiste et al., 2005) and is one of the most commonly used motivational theories (Campbell and Pritchard, 1976; Heneman and Schwab, 1972; Mitchell and Biglan, 1971). Second, the theory is simple and easy to understand (Fudge & Schlacter, 1999). Third, some authors have found an approach that is particularly useful in promoting behavior and culture in some organizations. Finally, and most importantly, the theory is complex enough to suggest some strategies that an organization can use to encourage employee behavior.

As argued, understanding the reasons for changing the motivation to do research of lecturers will be considered as one of the main goals of the research focus. These reasons are very personal. Expectancy theory has been recognized as one of the concepts of the best personal motivation (Ferris, 1977). Therefore, the use of this theory will explain the motivational levels of different lecturers on doing research and the changes in individual lecturers' motivation in the certain cultural context. The specific cultural context of the countries and the changing cultural environment of universities like in Vietnam will affect the perception of belief in self-effort to accomplish the task, belief in the system of organizational rewards can be received and belief in the values and needs of individuals. That means that these lecturers' perceptions are expected to predict correctly their changes of motivation on doing research.



The expectancy theory of Vroom (1964) was built based on the following four assumptions: First, each individual has different expectations about needs, motivation and past experiences. Second, the behavior of each individual is the result of choice based on their calculations. Third, each person has different desires such as someone who wants high income, someone who wants to advance, someone who want to challenge, Finally, people will make decisions to optimize the choices according to the individual's calculations. Another argument is to motivate a person, effort, performance results and rewards must be linked together. In this model, employees who do not work actively are not simply because of satisfied needs but instead, they have belief, awareness and estimation of their benefits probability. Victor Vroom suggests that an individual will act in a certain way based on beliefs (expectations) that the behavior will receive a desirable (valuable for themselves) reward once the action is completed (the result of completing the work becomes the instrumentality to get desired rewards), is described by three relationships:

1. Effort-performance relationship: Evaluating an individual's perceived probability that effort will lead to good performance.
2. The relationship between job performance results and rewards: The belief that if an individual does meet performance expectation, he or she will received a greater reward.
3. Relationship of rewards - personal goals: The organization's reward level meets personal goals or personal needs and the attractiveness of personal rewards. This refers the value the individual personally places on rewards.

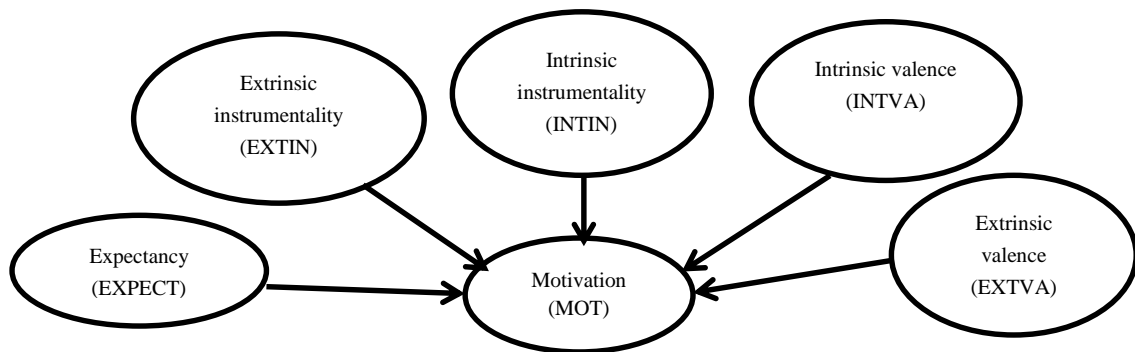
Vroom's expectation theory (1964) argued that when deciding to choose behavior, individuals choose behavior with the highest motivation. Mitchell (1974) suggests that the reasonableness of the components of expectancy theory is still controversial and the relevance of the model should be clear (Van Eerde & Thierry, 1996). Landy & Becker (1990) have suggested that the key to improving the expectancy model may be variables such as the number of outputs (number of rewards), the value of the rewards or the errors in the measures of variables (Van Eerde & Thierry, 1996). Mitchell & Albright (1972) suggested that more investigations into the motivation model to clarify the issues: (1) need to clarify the change of expectancy variables (E), (2) The predictions when E is different from 1 means the expectation of different individuals' efforts lead to performance in the job is different. Among the three structural components of expectancy theory, instrumentality (I) and value (V) are related to rewards. Therefore, instrumentality (I) and value (V) can be divided into intrinsic and extrinsic components. Extrinsic instrumentality (EXTIN), intrinsic instrumentality (INTIN), extrinsic value (EXTVA) and intrinsic value (INTVA). Research by Chiang & Jang (2008) developed Vroom's expectation theory by dividing instrumentality (I) and value (V) into extrinsic and intrinsic parts and examining the relative contributions of extrinsic and intrinsic parts into motivation of employee.

- Extrinsic instrumentality (EXTIN): Lecturers believe that better results will lead to a desired external rewards.
- Intrinsic instrumentality (INTIN): Lecturers believe that better results will lead to desired internal rewards.
- Extrinsic value (EXTVA): the value the individual personally places on external rewards.
- Intrinsic value (INTVA): the value the individual personally places on internal rewards.

It may be thought that instrumentality (I) and expectancy (E) are conceptually equivalent because they both refer to the level of awareness of the relationship between the two variables. Expectancy (E) is the relationship between effort and work performance, while instrumentality (I) are the relationship between job performance results and rewards. This conceptual similarity probably lead to some studies like Gavin (1970); Hackman & Porter (1968) combines E and I into a

variable and discusses the relationship between efforts and rewards. Although there is a conceptual advantage in combining E and I into a variable, there are advantages to keeping them separate. Using both of these variables allows to evaluate high productivity values (VxI) separately from the relationship between effort and productivity. Therefore, the study by Chiang & Jang (2008) did not combine the two variables E and I as one but still check the extent to which each component influences the motivation of the hotel staff as shown in Figure 2. Chiang & Jang (2008) and Ghoddousi et al (2014) developed Vroom's expectation theory from three factors into five factors. In this way, these studies examined the relative contribution of internal and internal components to employees' work motivation, which in the model has not been clarified yet.

Fig.1: The modified expectancy theory model



Source: Chiang & Jang (2008)

4.2. Social exchange theory

He & King's (2008) study shows that participation is the result of interaction between contextual and cognitive factors of stakeholders. Accordingly, from studies on organizational context (psychological environment and organizational environment) (Dickson et al., 2006) and motivational theory (expectancy theory of Vroom, 1964) with research results qualitative research of Purvis et al. (2015) developed a model that explains the role of stakeholder involvement in job performance. This study also considers the ability of stakeholders to be more motivated when stakeholders share similar perceptions about the psychological environment, when the organizational environment is said to exist. In such a situation, employees are more likely to share goals and values to create better connections between managers and employees (Schneider et al., 2011a).

Activities are held in the context of the organization (Ein-Dor & Segev, 1978; Kimkeit, 2013). A structure which closely links to the organizational context is the psychological environment, or the working environment as "perceptions of the psychological meaning and their meaning to the individual (James, 1982, p.219)". It is seen as an intervention variable between the context of an organization and the behavior of individuals in the organization (Patterson et al., 2005). This requires an estimation of the perceived person (James et al., 2008; Schneider et al., 2011b). "the perception of estimating / valuing the extent to which a value is expressed in an attribute environment is perceived"(James et al., 2008, p.8).

Climate is a multilevel structure(Dickson et al., 2006). Organizational climate is the higher level structure reflecting the Organizational climate is the higher level construct reflecting the shared



beliefs about the work environment that helps with organizational sense making (Schneider et al., 2011b), while psychological climate is the lower level construct reflecting an individual's perceptions, beliefs and meaning assigned to their work environment (Dickson et al., 2006). As perceptual constructs psychological and organizational climates exist within an organizational context comprised of institutional norms, values, and incentives prevailing in the organization (Parker et al., 2003; Schulte et al., 2006) that for man in institutionalized normative system that is intended to guide member behavior (Schneider, 1983). Organizational climate is theorized to derive from: 1) exposure to the same structural characteristics such as policies and procedures; 2) attraction, selection and attrition of organizational members; and 3) communication and social interaction, all of which encourage common attitudes (Schneider, 1983). Consequently, organizational climate is viewed as an extension of psychological climate derived from the aggregation of individual perceptions of the work environment (James et al., 2008).

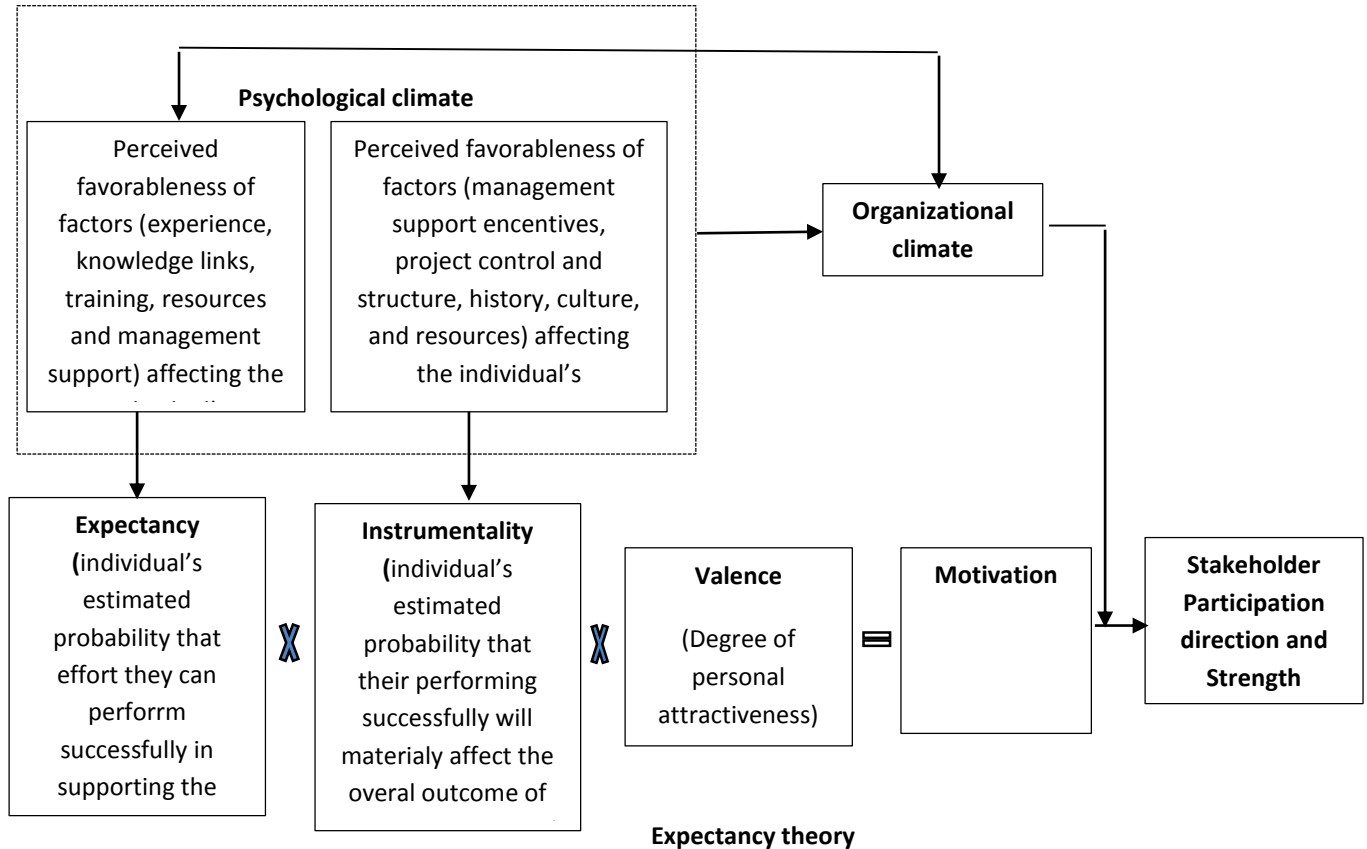
Responses generally corroborate the interplay between the expectancy, instrumentality and valence and individual motivation to participate as predicted by expectancy theory (Vroom, 1964). More importantly, the findings suggest a strong relationship between the psychological climate for implementation and the motivational constructs of instrumentality and expectancy of stakeholders to participate in the assimilation of project management tools and methodologies. Estimates of personal and organizational success are based on an assessment of the psychological climate (Dutton et al., 1997). Psychological climate variables that influenced expectancy including organizational links, training offered by the external vendor (which is similar to organizational links, but is more specific), resources, politics, rewards / punishment and management support.

Most psychological climate variables (management support, culture, history, politics, control and structure, organization size, resources, and rewards and punishment) exhibited a strong impact on instrumentality. Within the positive organizational climate, the psychological climate variables were perceived positively and strengthened the anticipated participation even when valence was low or negative.

Fig.2 presents the psychological dimensions that influenced instrumentality and expectancy, as well as the propositions that describe when an organizational climate is positive, negative, or non existent, offer prescriptive value when an organization is considering an implementation effort. When perceptions of the climate do not support the assimilation effort, care should be taken by the organization to change the climate that is perceived as supporting a successful implementation. Psychological climate variables that were found to impact expectancy (an individual's estimated probability that with effort they can perform successfully in supporting the implementation) that is a malleable to change in a short time frame including knowledge links (i.e., use of consultants and external resources with needed skill sets), training, and management support. Psychological climate variables that were found to influence instrumentality (an individual's estimated probability that performing will affect the overall outcome of implementation) that is susceptible to change in a short time frame including incentives, resources, and management support.

Fig.3 offers a model that project show changes to the climate could affect stakeholder participation. When projections of changes to the climate are negative, management needs to consider how to counter balance such changes. When there are no such counter balances, the effort is under considerable jeopardy of failing to have the necessary participation to successfully assimilate the innovation.

Fig. 2. Relationship between psychological climate organizational climate and stakeholder direction and strength



Source: Purvis et al (2015)

From the above research results, social exchange theory is applied to provide an understanding of the interaction between stakeholders that can receive favorable support for the implementation of the work. In contrast, the performance of the individual's work helps achieve the organization's goals. Moreover, awareness of the organization's favorable support will likely impact individual participation through expectation variables E and means I in Vroom's expectation theory. Social exchange theory highlights the mutual exchange between resources between individuals and society. The reciprocal norms constitute an individual's reciprocal action to be treated in a specific way, such as response to a money-award; service, information, respect, and love (Bateman & Organ, 1983). Social and reciprocal exchanges were studied in many contexts as "support" (Ozono et al., 2016). The study also shows that if an organization provides support for employees (such as flexible work schedules), receive positive responses that follow the employee's satisfaction and commitment (Ahmad & Yekta, 2010; Eisenberger et al., 1986; Pradesa et al, 2013). Eisenberger has determined that this is a POS-perceived organizational support, which refers to the extent to which employees believe their organization valuing their contributions and feelings and responds their needs. And then employees will tend to increase the motivation to work for the organization. Based on the principle of social exchange, the organization's support theory assumes that employees with high POS will find ways to respond by being more active, and working harder.



Extending the support for the link between employee reciprocation and attendance, research has shown that employees perceptions of whether they are valued by their organization and its members influences their illness attendance behaviors. For instance, Bernstrøm and Kjekshus (2012) found that supervisor support led to higher rate of employee participation and suggested that employees perceptions of not being valued may decrease the rate of employee participation. Also, Jourdain and Chenevert (2014) examined the moderating influence of POS on the burnout-absenteeism hypothesis. The authors found that when an organization valued "humanity" (respect for workers, latitude for employee errors), individuals were less likely to be absent when sick. While it has been determined that presenteeism is not necessarily the inverse of absenteeism, theoretically POS may still influence the decision process behind the attendance behavior (Gerich, 2015). As employees' perceptions of value directly relate to their decision to abstain from work when sick, it follows that POS may still relate to individuals' decision to attend work when sick. If any employee feels valued by their organization, he/she may attempt to demonstrate reciprocity (beyond every-day attendance) by pushing himself/herself to attend work when ill (Kurtessis et al, 2015). This is based on Gouldner's mutual relationship, when an individual participates in an exchange relationship, the individual is required to fulfill his or her obligations in exchange for the people they have received services. The reciprocal relationship is argued based on the individual's "sense of duty" to express morality (Eisenberger et al., 1987; Rhoades et al., 2001). Rhoades et al. (2001) have defined "felt obligation" as a prescriptive belief regarding whether one should care about the organization's well-being and should help the organization reach its goals. Thus, the good action of an individual to another individual creates a "felt obligation" that responds by doing the right thing to meet the requirements of social exchange.

4.3. Framework development

Thus, with the above arguments, in addition to extrinsic instrumentality (EXTIN), intrinsic instrumentality (INTIN), extrinsic value (EXTVA), intrinsic value (INTVA), expectancy (EXPECT) also the perceived organization support (POS), felt obligation (OF) also affect the faculty's motivation to do research. Table 1 and fig.3 summarize the components developed from Vroom's expectation theory and social exchange theory and applied in study on faculty's motivation to do research.

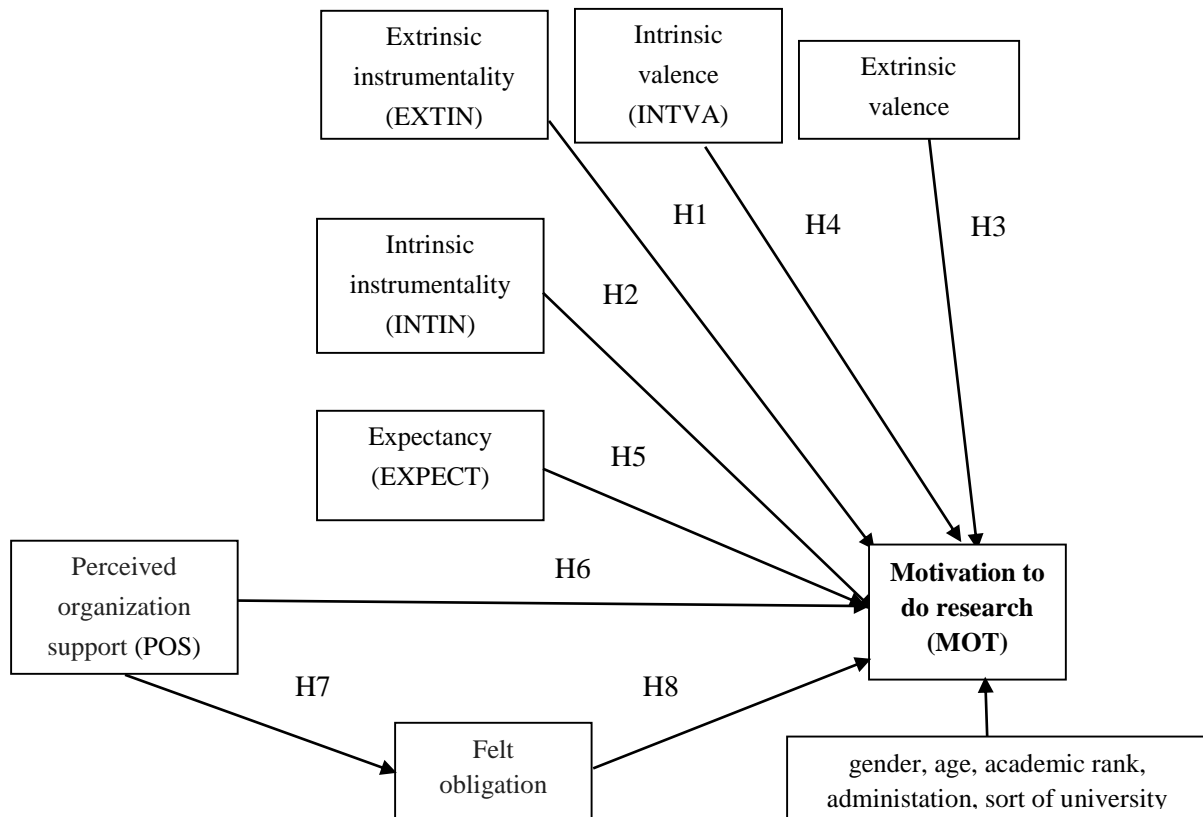
Table 1. Dementions affecting on faculty's motivation to do research

Dementions	Definition	Source
Expectancy (EXPECT)	An expectancy is defined as a momentary belief concerning the likelihood that particular act will be followed by particular outcome. Expectancy that one's effort will lead to a desired performance is based on past experience, self-confidence, and the perceived difficulty of the performance goal	Vroom (1964, tr.17); Zhang (2014); Chiang và Jang (2008)
Intrinsic instrumentality (INTIN)	Intrinsic instrumentality is the perceived probability that good performance will lead to desired intrinsic outcomes. The intrinsic	Chen et all (2006); Tien (2000); Zhang (2014); Chiang và Jang (2008);



	instrumentality is the belief that if an individual does meet performance expectation, he or she will receive a greater intrinsic reward.	Ghoddousi & cộng sự (2014).
Extrinsic instrumentality (EXTIN)	Extrinsic instrumentality is the perceived probability that good performance will lead to desired extrinsic outcomes. The intrinsic instrumentality is the belief that if an individual does meet performance expectation, he or she will receive a greater extrinsic reward.	Chen et all (2006); Tien (2000); Zhang (2014); Chiang và Jang (2008); Ghoddousi & cộng sự (2014).
Extrinsic valence (EXTVA)	Extrinsic valence refers the value the individual personally places on extrinsic rewards: the function of needs, goals, values and preferences.	Chen et all (2006); Tien (2000); Zhang (2014); Chiang và Jang (2008); Ghoddousi & cộng sự (2014).
Intrinsic valence (INTVA)	Intrinsic valence refers the value the individual personally places on intrinsic rewards: the function of needs, goals, values and preferences.	Chen et all (2006); Tien (2000); Zhang (2014); Chiang và Jang (2008); Ghoddousi & cộng sự (2014)
Perceived organization support (POS)	Perceived organization support assumes employees form general beliefs concerning how much the organization values their contributions and cares about their well-being.	Eisenberger và cộng sự (1986); Rhoades, Eisenberger & Armeli (2001)
Felt obligation (FO)	Felt obligation is a prescriptive belief regarding whether one should care about the organization's well-being and should help the organization reach its goals.	Eisenberger và cộng sự (1986); Eisenberger & cộng sự (2001)

Fig 3: Framework of academics' research motivation



4.4. Hypothesis

The expected theoretical components provide a framework for assessing the implementation of scientific research. The objective of this study is to explain the relationship between rewards and doing research through the estimation of expectations (Riedel et al., 1988). Expectancy theory shows that a person will not have high motivation to do research unless he or she appreciates the potential of a reward. Moreover, external and internal rewards can provide different incentives for doing research. In a meta-analysis, Cerasoli et al (2014) demonstrated that intrinsic and extrinsic motivation predict different performance results (quality and quantity). In addition, some studies even suggest that intrinsic rewards predict higher motivation than extrinsic rewards (Mitchell & Albright, 1972). Moreover, after dividing the instrumentality and value into internal and external components, Chiang and Jang (2008) found that internal instrumentality better predict the overall work motivation of employees. Therefore, variables can be divided into external and internal parts to better understand decisions on doing research. Studies support the notion that internal rewards can predict better results and have a higher degree of certainty leading to a stronger effect on motivation (Wahba & House, 1974). In other words, with intrinsic motivation, there are more expectancies and instrumentalities that are perceived than extrinsic motivation (like financial



rewards), that people can be more certain about conducting research to gain respect, overcome challenges,.... The hypotheses are:

Hypothesis 1: Extrinsic instrumentality is related to the motivation of faculty to conduct research.

Hypothesis 2: Intrinsic instrumentality is related to the motivation of faculty to conduct research.

If factors that motivate faculty to conduct research is predicted by extrinsic and intrinsic instrumentality, it can also be influenced by extrinsic and intrinsic valences. Study Eccles et al. (1983) showed that when a result of a task (ie, reward) / behavior is attractive (highly valuable to that individual), individuals have higher motivation to participate in that task / behavior to get a reward (Eccles & Wigfield, 2002). Schmidt and Dolis (2009) argue values that individuals placed on rewards are important because they can amplify or less the impact of expectancy. Furthermore, Diefendorff & Chandler (2011) also proposed that valences help determine the value of an action process. Therefore, the valences that individuals place on extrinsic and intrinsic rewards can affect whether an individual believes that doing research is a valuable activity to conduct even challenges and difficulties. Therefore hypotheses 3 and 4 discuss the relationship between extrinsic and intrinsic valences and motivation of faculty to conduct research.

Hypothesis 3: Extrinsic valences are related to the motivation of faculty to conduct research.

Hypothesis 4: Intrinsic valences are related to the motivation of faculty to conduct research.

Research has shown that personal expectations about their behavior to lead to the corresponding action of behavior (Miller & Grush, 1988). Furthermore, research has shown that individuals who expect to fulfill a difficult goal have led to higher motivation to perform and higher results (Matsui et al., 1981). Therefore, in the field of research activities, will explain the expectations of individuals as individuals believe that participation and effort on doing research will lead to certain success. Having this expectation or in other words, having confidence in your efforts will help them become more motivated even when you meet difficulties. So hypothesis 5 provides a relationship between expectation and motivation on doing research.

Hypothesis 5: Expectancy is related to the motivation of faculty to conduct research.

If an employee is aware that he is valued and supported by an organization, he or she can feel a greater relationship with the organization and respond to actions that are conducive to the organization (Liu, 2004). For example, researchers have shown that higher POS can lead to higher levels of work participation (Eisenberger et al., 1990). Rhoades et al (2001) demonstrated that higher POS leads to lower absences. Therefore, if an organization gives value to its employees, they can respond with specific behavior as participation and that is the content of hypothesis 6.

Hypothesis 6: POS is related to the motivation of faculty to conduct research.



Moreover, POS can affect to the motivation of faculty to conduct research through an intermediate variable. POS has long been linked to work results through felt obligation (OF) because POS can also elicit employee feelings about obligations to the organization (OF) (Rhoades et al., 2001). POS has been linked to a higher level of felt obligation. In addition, perceived obligations have been proven to be a mechanism that explains the links between POS and some positive results. Research has demonstrated that OF as an intermediate variable for some of the relationships between POS and work motivation.

Theoretically, when an employee receives more support from his organization, that individual is more aware of his value being received. Therefore, a supported individual may feel an increased obligation to an organization to respond to the organization. Participation can therefore be one of the behaviors an employee performs to response his or her obligations to the organization (McMillan & Albrecht, 2010). Moreover, an employee may believe that the decision not to participate in doing research can lead to negative consequences for the organization in reducing organizational performance. For example, an employee may believe that his / her non-participation will reduce the ability of an entire department to complete a project. Therefore, an employee who is regularly supported, felt obligation to help organization and can voluntarily perform even when facing difficulties and obstacles and thus increase the motivation to conduct behavior for the benefit of the organization. This argument leads to hypotheses 7, 8 and 9.

Hypothesis 7: POS is related to felt obligation

Hypothesis 8: Felt obligation is related to the motivation of faculty to conduct research.

Hypothesis 9: Felt obligation mediates the relationship between POS and the motivation of faculty to conduct research.

Personal characteristics and some other factors: The motivation of faculty to conduct research is also shown in the studies which are different or inconsistent about some personal characteristics such as gender, rank (full professor associate professor, assistant professor), tenured status, discipline. Therefore, the study also examined the motivation difference between different lecturers on these personal characteristics.

Related to the organization is the type of university or university rankings also affects the motivation of academics on doing research. Therefore, the study also intends to test the difference the lecturers' motivation among these types of organizations.

5. Issues in further research

The study outlines a research framework for faculty's motivation to conduct research with context in universities. Three original components in Vroom's expectation theory (1964) were developed into five components including expectancy (EXP), intrinsic instrumentality (INTIN), extrinsic instrumentality (EXTIN), extrinsic valence(EXTVA) and instrinsic valence (INTVA). And propose two factors from the theory of social exchange that are (POS) and felt obligation (OF).



More experimental research is needed regarding the many academic contexts of different universities around the world and the scientific community and it is necessary to test the proposed model. This is a model designed to see a set of specific relationships between elements of personal perceived of lecturers for their conduct research.

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