INVESTIGATING THE INFLUENCE OF ENTREPRENEURIAL ORIENTATION AND TRANSFORMATIONAL LEADERSHIP ON ORGANISATIONAL PERFORMANCE WITH THE MEDIATION OF INNOVATION: EVIDENCES FROM A STATE-OWNED ELECTRICITY COMPANY IN INDONESIA

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The research findings regarding the influence of entrepreneurial orientation and transformational leadership on organisational performance are inconsistent. This research aims to investigate the direct influence of entrepreneurial orientation and transformational leadership on organisational performance and their indirect influence with the mediation of innovation. The population of this research is 301 business units of Indonesia’s State-Owned Electricity Company of Java and Bali distribution region, from which 168 were selected as the sample. The managerial or practical implications of this research are that it provides a better understanding, proposes suggestions to the organisation in maximising and optimising its intangible resources in relation with entrepreneurial orientation, and encourages activities related to its innovation in order to increase its organisational performance, especially in the specific nature of state-owned enterprise’s context and business model. In addition, the organisation needs to encourage transformational leadership among its leaders to enhance activities related to innovation.

Keywords: Entrepreneurial orientation; transformational leadership; organisational performance; innovation; state-owned enterprises.

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Background

Effective operations require organisations to align and adjust the organisational environment, strategies, leadership skill and also organisational design (Beer et al., 2005). The result is affected by organisational performance, which consists of organisational development, compensation plan, communication system, managerial style, organisation structure, policies and procedure (Cash and Fischer in Thoyib, 2005).

Strategic management has become every company’s important part in facing a competitive and dynamic environment (Mišanková and Kočišová, 2014). While management can be defined as a logical and continuous process of any decision-making process (Ogura, 2004), strategy can be defined as the way chosen to achieve long-term goals (David, 2011), and strategic management can be defined as the “art” and “science” related to formulating, implementing, and evaluating the cross-function decisions that support an organisation to attain its goals (David, 2011).

Strategic management consists of three distinct and interrelated processes, which mutually influence one another. Those processes are strategic planning/formulation, strategic implementation, and strategic control/evaluation (Mišanková and Kočišová, 2014). To achieve long-term goals, the processes should be implemented and run optimally at every stage. Thus, a company can eventually achieve its strategic competitiveness, which is achievable when a company is successfully able to formulate and implement its value-creating strategy (Hitt et al., 2013).

One of the substantial theories in strategic management is Resource-Based View (RBV) (Akio, 2005). It is a way of looking at the company in its relationship with the approach of the strategy (Powell et al., 2004). Some RBV literatures indicate that the unusual internal resources (idiosyncratic) determine the competitive advantage that survives in a longer period of time (Lee et al., 2001).

A company is said to have a competitive advantage if the company has implemented a strategy that creates a superior value for their customers while their competitors cannot duplicate that strategy, or a very large amount of money is spent to make such strategy (Sirmon et al., 2011 in Hitt et al., 2013). RBV views the company as a collection of resources, and parts of those resources significantly affect the company’s competitive advantage that impacts its performance (Barney, 1986, 1991; Penrose, 1959; Peteraf, 1993; Wernerfelt, 1984 in Lee et al., 2001). According to Sirmon et al. (2011) in Hitt et al. (2013), it is essential for companies that want to get above-average returns to have an understanding of the way to develop a competitive advantage. The concept of performance is described as how an individual or group can reach a conclusion towards the goal (Yıldız et al., 2014).
Organisational performance can be defined as the degree of success in running programs (Miller, 1998:318 in Hermawanto, 2007). It is a function of the results of the existing work/activities that are affected by internal factors (e.g., intelligence, skills, emotional stability, motivation, role perception, family condition, physical condition of a person, the characteristics of the working group) and external factors (e.g., employment regulation, customers’ desires, competitors, social values, labour unions, economic conditions, changes in work location and market conditions) in achieving the goals which were set during a specific time period (Tika, 2010:122 in Ilmania et al., 2015).

Being an entrepreneur is one of the roles of the executives in the category of decisional roles (Mintzberg, 1972 in Rainey, 2003). Entrepreneurial orientation can be seen as a resource that produces a sustainable competitive advantage (Covin and Miles, 1999; Lado and Wilson, 1994; Zahra et al., 1999 in Lee et al., 2001). Entrepreneurial orientation becomes one of the most important critical resources for company performance (Lee et al., 2001).

Some research also suggested that there is a significant influence of entrepreneurial orientation (EO) on organisational performance (Alswidi and Mahmood, 2012; Bayarçelik and Özşahin, 2014; Smart and Conant, 1998; Wahyu et al., 2013). However, some researches showed that not all dimensions of EO significantly affect organisational performance (Arshad et al., 2014; Djamareng et al., 2012; Hughes and Morgan, 2007; Shan et al., 2015).

The leadership of a company involves executives, company’s management, senior management, business unit, subordinates and operational management on the level of delivery product (Rainey, 2006). Managers and leaders have a great influence on the success of an organisation (Cherrington, 1994). The studies that explain the reasons of organisational success or failure indicate that there is a significant role of managers (Cherrington, 1994). Transformational leadership focuses on the changes of officers’ attitudes and assumptions and focuses on building the commitment toward organisational mission, goals and strategies (Cherrington, 1994). Transactional leaders set transactions between organisations and members; they get things done by giving rewards like awards, increasing payments and improving career for well-performed employees; while penalty or punishment is given to non-performing employees (Cherrington, 1994).

Some researches implied that there is a significant influence of transformational leadership on organisational performance (Ilmania et al., 2015; İşcan et al., 2014; Nasrul et al., 2011; Samad, 2012; Yıldız et al., 2014). However, the results do not support the findings of Griffith (2004), who said that there is no direct relationship between school performances.

Innovation holds an important and central role in almost all organisations (Mejia et al., 2008). In the current competitive environment, enterprises must be
able to innovate, introduce themselves, survive and grow (Lowe and Marriott, 2006). Innovation can be created through entrepreneurial approach (Lowe and Marriott, 2006). It is described as organisational activities based on the variation of novelty level (Oke et al., 2009). In a survey of more than 900 senior executives conducted by the Boston Consulting Group Inc., innovation was identified as the key of increasing a company’s revenue (Oke et al., 2009).

Some of the results showed that innovation has a supportive influence on the improvement of organisational performance (Aragón-Correa et al., 2007; García-Morales et al., 2012; Gunday et al., 2011; Jiménez-Jiménez and Sanz-Valle, 2011; Samad, 2012). There are also findings concluding that innovation mediates the effect of transformational leadership and EO on organisational performance. Wahyu et al. (2013) found that innovation partially mediates the relationship between entrepreneurship orientation and business performance. Furthermore, the research of Aragón-Correa et al. (2007) suggested that transformational leadership has an indirect effect on performance through innovation.

Both private and public sector bureaucracies were process-oriented, rule-based organisations (Weber, 1922 in Teofilovic, 2002). Public bureaucratic systems were designed to be stable, but we have reached a point in history where this stability is counterproductive (Osborne, 2007). The hierarchy maintains power and directs control through a top–down chain of command, while work was broken down into specialized and routinized tasks. Routinization demands compliance with a comprehensive set of rules and administrative regulations, which effectively limits decision-making discretion among managers (Teofilovic, 2002).

According to the World Bank, state-owned enterprises are “government-owned or government-controlled economic entities that generate their revenues from selling goods and services” (Sokol, 2009 in Klovienė and Gimžauskienė, 2014). The term SOE refers to any enterprise where the state has a significant control through full, majority, or significant minority ownership (OECD, 2005 in Klovienė and Gimžauskienė, 2014). Nevertheless, despite their economic significance and legal complexity, SOE remain surprisingly understudied (Pargendler, 2012). They are subject to more complex institutional pressures in host countries than private firms (Meyer et al., 2014). The conflicts of interest inherent in the state’s dual role as a player and referee are both evident and enduring, and they manifest themselves in a variety of historical and institutional contexts (Pargendler, 2012). There is a risk that state ownership can destroy value if best practices in ownership and management are not applied: of most concern to CEOs are issues of corruption, bribery and inefficiency (The Public Sector Research Centre, 2015).

SOE have to walk a fine line when balancing economic, social and other objectives. As such, and perhaps even more so than their private sector counterparts, they need to find a way to remain financially sustainable (and where
appropriate commercially competitive) while creating value for citizens and society (The Public Sector Research Centre, 2015). They should maintain internal management control and risk management to utilize resources efficiently and effectively and should also be continually scanning the environment (intelligence scanning) to allow them to proactively identify and address opportunities and challenges which arise from external trends and events. As such, they need to consider how best to attract, develop, motivate and retain talent while exploring ways of collaborating with other stakeholders (e.g., via staff exchanges between SOE and industry) to jointly develop talent as opposed to competing for the same talent pool (The Public Sector Research Centre, 2015).

In today’s fast-changing, globally competitive Information Age, systems that cannot change are doomed to failure (Osborne, 2007). The operations of publicly-owned enterprises should integrate the elements of public responsibility and market approach (Bajo et al., 2018). It is important not to forget when reporting on performance of SOE, activities must include not only national aspirations: to develop the rule of law, eradicate corruption, ensure fairness, financial transparency and democratization, but also the global priorities: to reach the integrated smart growth, sustainable energy and the plans of integrative growth efficiency with clear objectives involving citizens into development and implementation of these plans (European Commission, 2010 in Klovienė and Gimžauskienė, 2014).

One way of improving efficiency and competitiveness in a firm is through innovative activity (Girma et al., 2009). State-owned enterprise, like a standard organisation, has to be responsive to technological change (Florio and Fecher, 2011 in Klovienė and Gimžauskienė, 2014). Innovation allows firms to develop new processes to produce existing goods more efficiently or indeed develop new products (or differentiate existing ones) that allows it to expand sales and improve market performance (Girma et al., 2009). Appropriate innovative technologies must be adopted and adapted to strengthen organisational effectiveness. Information and knowledge on the external system helps management to adapt rather than to control (Klovienė and Gimžauskienė, 2014). These two innovation activities are generally referred to as process and product innovation (Girma et al., 2009). They should leverage technological and service innovations to deliver products and services, which meet user’s needs within constrained budgets (doing “better for less”), as well as achieve desired outcomes economically and socially (The Public Sector Research Centre, 2015).

SOEs executive leaders should ensure that they possess the right level of competence, professionalism, authority and integrity and fulfils the “4 Cs” test (Capacity, Capability, Clarity and Commitment to Integrity) (The Public Sector Research Centre, 2015). Leadership is fundamental because it secures organisational efficacy and capacity that is necessary for innovation in public sector
(Teofilovic, 2002). It does this through: (1) motivating employees; (2) fostering idea experimentation; and (3) establishing a strategic vision that identifies an organisation’s values and objectives (Teofilovic, 2002). Still, the rigidity and routinization of bureaucracy continue to impede the development of effective leaders in the public sector (Teofilovic, 2002).

While in many respects SOE face similar megatrends, opportunities and threats to private sector businesses, there are also some important differences (The Public Sector Research Centre, 2015). In particular, SOE have a different purpose, mission and objectives which relate to some aspect of public service and/or social outcomes (The Public Sector Research Centre, 2015). As such, SOE need a new scorecard, capturing Key Performance Indicators (KPIs) which clearly link to their wider purpose. This goes beyond financial results to consider total impacts such as on other societal “capitals” like social, human, innovation, citizen and welfare and environmental capitals (The Public Sector Research Centre, 2015).

Another important dimension of SOE is the extent to which they are now a global force. Many, if not most, large SOE are active internationally and engaged in trade, with some emerging country governments pursuing explicit policies of SOE internationalization. In 2050, Indonesia, Mexico and Nigeria could also push UK and France out of top ten global economies (The Public Sector Research Centre, 2015). The regulation of Republic Indonesia No. 30-2019 has allowed the private sector to join the competition in energy sector, especially in electricity utility sector. It becomes challenges for electricity utility SOE in Indonesia to face both the external and internal challenges, and also improve their performance.

According to the explanation above, this research tries to further examine the direct effect of EO and transformational leadership on organisational performance and their indirect effect through innovation as the mediator variable with a specific focus on the nature of SOE as a business model.

Research Hypotheses

The effects of entrepreneurial orientation on organisational performance

The success of a company in achieving its goals is in fact no longer determined only by the successful implementation of the principles of management such as planning, organizing, leading and controlling, but also by other “invisible” factors, which are more determining in the success of an organisation to achieve its goals: determining whether or not the managements can be implemented (Thoyib, 2005).

Entrepreneurship represents organisational behaviour or intrapreneurship, while EO refers to the process, practice, methods, operational philosophy and decision-making style used by top-level executive in his effort to manage as an entrepreneur.
EO is defined as a set of process, practice and decision-making activities that lead to the development and delivery of a set of new and innovative services that can distinguish the organisation from other organisations in the market (Lumpkin and Dess, 1996).

There are various causes, both internal and external, that affect organisational performance (Donaldson, 1998). Organisational performance is strongly influenced by external economic environment, and it is also influenced by the internal factors of the organisation itself (Donaldson, 1998).

The studies of Smart and Conant (1998) and Alswidi and Mahmood (2012), show that there is a positive and significant correlation between entrepreneurship orientation and organisational performance. Wahyu et al. (2013) found that entrepreneurship orientation can directly affect business performance. Bayarçelik and Özşahin (2014) also found that EO has a positive correlation with financial performance. However, some studies indicate that not all dimensions of EO have significant influences on business performance. Arshad et al. (2014) revealed that four out of five dimensions of EO, which are innovativeness, pro-activeness, risk-taking and competitive aggressiveness, affect business performance, while autonomy, which is also one dimension of EO, has no significant influence. Shan et al. (2015) found that three out of five dimensions of EO have significant effects on performance. Meanwhile, the findings of Hughes and Morgan (2007) demonstrated that only pro-activeness and innovativeness, out of the five dimensions of EO, have positive effects on business performance. The research of Djamareng et al. (2012) resulted in different findings, i.e., EO has no direct effects on business performance, but it has indirect effects through strategic planning.

The effects of transformational leadership on organisational performance

Leadership-related studies cannot be viewed from individual perspectives only, but also comprehensively from the perspectives of the organisation, or seen from the enterprise scale (Rainey, 2006). The leadership of a company involves its executives, corporate management, senior management group, business units and subsidiaries as well as operational management at the level of delivery product (Rainey, 2006). From these groupings, it can be seen that leadership must be held at all lines of the company. It should not be attached only to individual leaders at the top, but also to almost all lines in the organisation.

In general, transformational leadership involves the union of the surrounding people towards one shared goal through self-reinforcing behaviours, in which the followers get the achievement of a task successfully and from the dependence on intrinsic rewards (Oke et al., 2009). Organisational performance is not only influenced by one cause such as organisational structure (inappropriate
organisational structure results in low performance), but also by many factors such as strategies, human resources, products, marketing, production, logistics and procurement (Donaldson, 1998).

The findings of Yildiz et al. (2014) regarding leadership skill or managerial style indicate that leadership style (transactional leadership and transformational leadership) has positive effects on business performance. Some researches specifically investigating the correlation between transformational leadership and organisational performance revealed that transformational leadership has positive effects on organisational performance (Ilmania et al., 2015). Another finding also shows that transformational leadership contributes directly and significantly to organisational performance (Nasrul et al., 2011). The findings of İşcan et al. (2014) and Samad (2012) also revealed consistent results, i.e., transformational leadership has positive and significant effects on organisational performance. However, those findings contrasted the findings of Griffith (2004), in which the transformational leadership of principals (which is explained in three components, namely inspiration or charisma, individualized consideration and intellectual stimulation) has no direct correlation with school performance.

The effects of entrepreneurial orientation on innovation

Innovation can be created in entrepreneurial approaches, which are: (1) attractive in funding and the provision of resources; (2) developing a draft of initiatives and innovative services; (3) having visionary behaviours in identifying the desired impacts and outcomes; (4) motivating and getting involved with the “difficult” clients; (5) mobilizing support for the agency and the delivery partner (Lowe and Marriott, 2006).

In the practice, many people are entrepreneurial and successful in implementing new ideas (Lowe and Marriott, 2006). They can be found in almost any kind of organisation and in every aspect of life (Lowe and Marriott, 2006). Their goal is to be independent and enthusiastic and striving to realize their goals by using the organisation where they work as a tool or the vehicle (Lowe and Marriott, 2006). Those people will look for innovativeness wherever they work; if the organisation does not allow them to be entrepreneurial, they will leave that organisation (Lowe and Marriott, 2006).

Entrepreneurial activities and innovation can grow in various types of organisations: small and medium enterprises (SME), large organisations and in public sector organisations (Lowe and Marriott, 2006). In large organisations, entrepreneurial activities and innovation exist in the trading network, and usually in the supply chain of those large organisations (Lowe and Marriott, 2006).
Dual-core theory of innovation distinguishes between administrative and technical innovation (Daft, 1978 in Damanpour and Gopalakrishnan, 1998). Radiality theory of innovation describes the term innovation by dividing it into two different terms, i.e., radical innovation and incremental innovation (Damanpour and Gopalakrishnan, 1998).

Bayarçelik and Öğşahin (2014) found that EO has a positive correlation with innovation. This finding is confirmed and supported by Fernández-Mesa and Alegre (2015), who found a positive correlation between EO and innovation. Shan et al. (2015) revealed that the five dimensions of EO have significant effects on innovation speed. Wahyu et al. (2013) found that entrepreneurship orientation is significantly correlated with innovation.

### The effects of transformational leadership on innovation

Leadership plays a vital role in supporting innovation activities and processes in organisations (Oke et al., 2009). Although some innovation might be a bottom-up activity, and come from the members of organisation who do not occupy a leadership position or are not from the top management, in general, innovation is emphasized to be the result of a strategic response or initiative in the organisation in order to run effectively in the market places (Oke et al., 2009).

Transformational leadership is associated with creative activities and activities of exploitative innovation as well as exploitative innovation activities (Oke et al., 2009). Transformational leadership style will be more appropriate to support the creative process of innovation and exploratory activities of innovation. Transformational leadership can also be suitable for exploitative activities that are certain and involve things such as repositioning of products or services in a new and different market (Oke et al., 2009).

Ambidextrous theory of innovation focuses on the adoption process of innovation (Damanpour and Gopalakrishnan, 1998). This process of adoption includes a set of activities that lead to the decision to implement activities that can support the implementation and the continuation of the use of innovation (Damanpour and Gopalakrishnan, 1998).

The finding of İşcan et al. (2014) shows that there are significant positive effects of transformational leadership on innovation. The finding confirms the results of García-Morales et al. (2012), who revealed that transformational leadership has both direct and indirect effects on innovation. The research of Aragón-Correa et al. (2007) showed that innovation is influenced by transformational leadership. Jung et al. (2003) also found that transformational leadership has positive and significant impacts on organisational innovation.
The effects of innovation on organisational performance

Innovation is the openness and the use of new knowledge, new technology and creative processes to create products or services relevant with customer’s want (Damanpour, 2010 in Wahyu et al., 2013). Innovation is the transformation of knowledge into a product, a process and a service, i.e., the act of using something new (Damanpour, 2010 in Wahyu et al., 2013). Innovation can be seen as a process or an activity (Oke et al., 2009). Innovation as a process sees innovation as a multi-aspect concept described as a long search to find new ways to do something (Oke et al., 2009).

The concept of performance measurement based on balanced scorecard sees performance measurement not only on financial perspectives but also on four other perspectives namely customer perspective, internal business process perspective, as well as learning and growth perspectives (Kaplan and Norton, 1996b). Kaplan and Norton argue that the ultimate goal of every strategy is to increase the value to the shareholders of an organisation and that the four strategic perspectives of balance scorecard consist of some scorecard measures, which are then called as Key Performance Indicators (KPI) (Lynch, 2006).

A company can be viewed as a part that consists of several parts such as divisions that exist in the company (Donaldson, 1998). At the end, corporate performance will be influenced by divisional performance (Donaldson, 1998). More specifically, corporate performance refers to the accumulation of the performances of the divisions existing in a company (Donaldson, 1998). The performance of each division in a company is added to the performance of the company separately so that if a division has low performance, other divisions can produce different levels of performance starting from the low level to the higher levels (Donaldson, 1998).

Several studies revealed the effects of innovation that support performance improvement in organisations. Jiménez-Jiménez and Sanz-Valle (2011) found that innovation positively contributes to business performance. They also found that the impact of innovation on performance is stronger on manufacturing companies than on service companies, and that the positive effects of innovation are lower in turbulent environments. Gunday et al. (2011) found that there are positive effects of innovation on the business performance of manufacturing industries or companies. The effects of innovation are significant not only on the performance of manufacturing companies. The research of Samad (2012) on a Malaysian logistics company which was engaged in service business revealed that both aspects of product and services on innovation are influential on the performance of the organisation. Some other researches also show that innovation and organisational
innovation have a positive and significant correlation with organisational performance (Aragón-Correa et al., 2007; García-Morales et al., 2012).

The commercial success comes from a set of innovations that integrate into products, services, or processes as well as ideas that meet the criteria desired by the market by providing values to customers, in which they become consumers, clients, or patients and can maintain the sustainability of the success of the organisation (Lowe and Marriott, 2006). Some other researches also showed that innovation and organisational innovation have positive and significant correlations with organisational performance. The findings of Wahyu et al. (2013) showed that innovation has a partial mediation role in the correlation between entrepreneurship orientation and business performance. Aragón-Correa et al. (2007) revealed that transformational leadership has indirect effects on performance through innovation.

State-owned enterprises should increase their innovation activities to adapt to today’s fast-changing, globally competitive environment. Some argue that stability in SOE is counterproductive and that SOE need to maximize their leadership competence and encourage their EO.

From the exposure above, the hypotheses of this research are formulated in Fig. 1.

**H1**: EO has a direct influence on organisational performance.
**H2**: Transformational leadership has a direct influence on organisational performance.
**H3**: EO has a direct influence on innovation.
**H4**: Transformational leadership has a direct influence on innovation.
**H5**: Innovation has a direct influence on organisational performance.

![Fig. 1. Research hypothesis.](image-url)
H6: EO has an indirect influence on organisational performance with the mediation of innovation.

H7: Transformational leadership has an indirect influence on organisational performance with the mediation of innovation

Research Methods

Research approach, population and sample

The population of this quantitative explanatory research is 301 business units of an Indonesian State-Owned Electricity Company, PT PLN (Persero) of Java and Bali distribution region. The unit analysis of this research is organisations (business units), and the sample is 168 business units. The sample size was determined using Slovin’s formula.

The respondents of this research are 159 structural officials (branch office managers or their representatives) of the business units, selected using probability sampling and proportionate random sampling based on working area (main unit or geography). This research considers branch managers as key informants because they receive more comprehensive information from a wide range of departments/division and they are very representative for evaluating the variables of the business units. The number of populations, samples and respondents is available in Table 1.

The data was collected during the first quarter of 2016 through online surveys using a web-based questionnaire application and offline surveys using paper-based questionnaires. The web-based questionnaire link was sent to the 112 randomly selected business unit branch managers in the distribution regions of Bali, Central Java and East Java via email. The mailing method is cheaper than travelling to the offices for personal interviews, in addition to exercising less pressure for immediate responses and providing the interviewees with a greater feeling of autonomy (García-Morales et al., 2012). The paper-based questionnaires were distributed to

<table>
<thead>
<tr>
<th>Main unit</th>
<th>Population number</th>
<th>Sample size</th>
<th>Respondent number</th>
</tr>
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<tbody>
<tr>
<td>Bali Distribution</td>
<td>13</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Banten &amp; West Java Distribution</td>
<td>100</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Central Java Distribution</td>
<td>75</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>East Java Distribution</td>
<td>113</td>
<td>63</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>301</td>
<td>168</td>
<td>159</td>
</tr>
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</table>

Source: Primary Data.
56 randomly selected business units in Banten and West Java, when the Branch Managers were attending an annual performance and evaluation meeting in Bandung, West Java. This research uses both online and offline data collection method because the business unit are spread over a broad geographical area (Java and Bali). The response rate of this research is 94.64% (only 159 questionnaire were returned; the other nine web-based/mailed questionnaires were not returned).

The respondents of this research can be grouped based on several characteristics. The dominant respondents are male (89.9%), aged between 40 and 50 years (33.3%), undergraduates (68.6%), working between 1 and 3 years (55.3%).

**Variables Measurement**

This research measures the perception of structural officials (branch managers or their representatives) on the business units using the 5-point Likert scale from 1 for strongly disagree to 5 for strongly agree. The validity of this research instrument were tested using Pearson’s product moment correlation, resulting in that all questions in the instrument, both the dimensions of the variables and the items, are valid at the significance level of 1% and confidence level of $\alpha = 0.01 >$ Sig. (1-tailed). The reliability of the research instrument was tested using Cronbach's alpha by comparing its value with the reliability threshold of 0.7. The results showed that the variables are reliable with the Cronbach's alpha > 0.9 (see Appendix A for the detail of research instrument/items).

EO is the set of processes, activities, practices, methods, operational philosophy and decision-making style that is intangible, leading to the development and delivery of innovative new services that support the achievement of strategic competitiveness within an organisation.

The measurement of EO refers to the dimension or indicator of Jambuligam et al. (2005) and Lumpkin and Dess (1996), which are:

1. **Autonomy**: the company’s ability to support the independent activity of the employees.
2. **Innovativeness**: the company’s ability to innovate.
3. **Risk Taking**: the ability of the company to take a chance/opportunity.
4. **Pro-activeness**: the company’s ability to take action in anticipation of the changes.
5. **Motivation**: the ability of the company to motivate employees to work harder and face challenges.

This research uses a confirmatory factor analysis to validate the measurement model of EO construct. The Goodness of Fit (GOF) index criteria for Absolute Fit
Measure category (Chi-Square = 146.401; Probability = 0.406; RMSEA = 0.012; RMR = 0.028; GFI = 0.918) have met the cut off value (good fit). The GOF index criteria for Incremental Fit Measure category (TLI = 0.997; IFI = 0.998; CFI = 0.998; NFI = 0.912) have met the cut off value (good fit), and the AGFI = 0.879 have met the cut off value (marginal fit). The GOF index criterion for Parsimonious Fit Measure category (CMIN/DF = 1.024) has met the cut off value (good fit). The construct indicators are unidimensional. This GOF shows that the measurement model is acceptable.

The standardized loading estimated value should be 0.5 or higher, and preferably 0.7 or higher (Hair et al., 2010). The standardized loading estimated values for EOs indicators (Pro-activeness = 0.930; Innovativeness = 0.897; Motivation = 0.817; Risk-Taking = 0.803; Autonomy = 0.727) show validity and reliability (α = 0.914).

Transformational leadership is leader’s behaviours which focus on the transformational attitude and assumption of employees and built the commitment for organisational mission, objective and strategy through self-reinforcing behaviours, in which the followers get the achievement for successful tasks and dependency on intrinsic rewards.

The measurement of transformational leadership refers to the dimensions or indicators of Cherrington (1994) and Oke et al. (2009), they are:

1. **Charisma (idealized influence):** deliver the vision and provide a deeper understanding of company’s mission, get the awards and trust and became the self-pride.
2. **Inspirational Motivation:** communicate the high-performance expectations, use symbols for focusing its efforts and provide an understanding of the essential goals.
3. **Intellectual Stimulation:** help the learning process, encourage rationality and solve the problem by considering details.
4. **Individualized Consideration:** give personal attention and treat each person individually, train the employees in private.

The GOF index criteria for Absolute Fit Measure category (Chi-Square = 44.056; Probability = 0.140; RMSEA = 0.040; RMR = 0.016; GFI 0.952) have met the cut off value (good fit). The GOF index criteria for Incremental Fit Measure category (TLI = 0.987; IFI = 0.992; CFI = 0.992; NFI = 0.961; AGFI = 0.910) have met the cut off value (good fit). The GOF index criterion for Parsimonious Fit Measure category (CMIN/DF = 1.259) has met the cut off value (good fit). The construct indicators are unidimensional. This GOF shows that the measurement model is acceptable.
The standardized loading estimated values of transformational leadership’s indicators (Charisma (idealized influence) = 0.974; Inspirational Motivation = 0.929; Intellectual Stimulation = 0.942; Individualized Consideration = 0.644) show good validity and reliability ($\alpha = 0.904$).

Innovation is the transformation of the knowledge into new products, processes and services, and it is the representation of changes of status quo in the form of radical or incremental changes of technical and administrative context within organisational activities.

In this research, innovation was measured by referring to the dimensions or indicators of Damanpour and Gopalakrishnan (1998), Jiménez-Jiménez and Sanz-Valle (2011) and Wahyu et al. (2013) they are:

1. **Product/Service Innovation**: services/products and production process technology; which is related to the main activities of the organisation and can be either a product or process innovation (Daft, 1978; Damanpour and Evan, 1984; Knight, 1967 in Damanpour and Gopalakrishnan, 1998).

2. **Process Innovation**: a multi-aspect concept described as a long research to find new ways to do things (Oke et al., 2009).

3. **Managerial/Administrative Innovation**: A process or activity which involves organisational structure and administrative process; which is indirectly related to the main activities of the organisation and have further direct relationship with organisation’s management (Daft, 1978; Damanpour and Evan, 1984; Kimberly and Evanisko, 1981 in Damanpour and Gopalakrishnan, 1998).

The GOF index criteria for Absolute Fit Measure category (Chi-Square = 26.983; Probability = 0.305; RMSEA = 0.028; RMR = 0.011; GFI = 0.967) have met the cut off value (good fit). The GOF index criteria for Incremental Fit Measure category (TLI = 0.995; IFI = 0.997; CFI = 0.997; NFI = 0.976; AGFI = 0.925) have met the cut off value (good fit). The GOF index criterion for Parsimonious Fit Measure category (CMIN/DF = 1.124) has met the cut off value (good fit). The construct indicators are unidimensional. This GOF shows that the measurement model is acceptable.

The standardized loading estimated values of innovation’s indicators (Process Innovation = 0.992; Product/Service Innovation = 0.983; Managerial/Administrative Innovation = 0.894) show validity and reliability ($\alpha = 0.904$).

Organisational performance is the level of success in running programs, which are the output of the functions or results of the organisational work and activities oriented on the organisation’s goal.
Organisational performance was measured using the dimensions or indicators which were stated by Kaplan and Norton (1996a), Nasrul et al. (2011) and Noviyanti et al. (2015) as follows:

1. **Financial Performance Perspective**: a measure which is related to profitability, i.e., measured by operating profit, return on capital employed (ROCE) or, most recently, economic value added, and another financial goal which might create a rapid sales growth or cash flow.

2. **Customer Perspective**: identification of customer and market segments in which the business unit will be competing in and the performance size of any business unit in the targeted segment, consisting of some major size or generic size of the company’s successful rate from the strategies which have been properly formulated and implemented.

3. **Internal Business Processes Perspective**: identification of important internal processes that must be mastered by the company. This process allows business units to: (1) provide a value proposition that will attract and retain customers in the targeted market segment; (2) fulfil the high financial expectations of the shareholders.

4. **Learning and Growth Perspective**: identification of infrastructures that must be built in creating growth and increasing long-term performance. The three main sources of learning and growth are: (1) man, (2) system and (3) the procedure of the company.

The GOF index criteria for Absolute Fit Measure category (RMSEA = 0.056; RMR = 0.041; GFI = 0.907) have met the cut off value (good fit). The GOF index criteria for Incremental Fit Measure category (TLI = 0.968; IFI = 0.979; CFI = 0.978; NFI = 0.938) have met the cut off value (good fit), and AGFI = 0.848 has met the cut off value (marginal fit). The GOF index criterion for Parsimonious Fit Measure category (CMIN/DF = 1.489) has met the cut off value (good fit). Although the value of the Chi-Square is 123,602 and the Probability is 0.003, not meeting the cut off value, the GOF criteria for Absolute Fit Measure (RMSEA, RMR, GFI) have met the cut off value (good fit). One of the measurement that is commonly used to correct the tendency of the chi-square statistic test of GOF index which rejects models with large sample size or large observed variable size is the root mean square error of approximation (RMSEA) (Hair et al., 2010). RMSEA also corrects both model complexity and sample size (Hair et al., 2010). The construct indicators are unidimensional. This GOF shows that the measurement model is acceptable.

The standardized loading estimated values of organisational performance’s indicators (Learning and Growth Perspective = 0.967; Internal Business Processes...
Perspective = 0.781; Customer Perspective = 0.757; Financial Performance Perspective = 0.587) show good validity and reliability (\( \alpha = 0.932 \)).

**Model and data analysis method**

This research uses Structural Equation Modelling (SEM) with Covariance Based-SEM in AMOS 18.0. The SEM analysis was conducted using a two-step approach (Haryono and Wardoyo, 2013), while the confirmatory factor analysis was conducted using the second order of confirmatory factors analysis (CFA second-order). The theoretical model of this research can be seen in Fig. 1.

**Results**

This section shows the main research results. First, Table 2 shows the means, standard deviations, and the inter-factor correlations of the research variables. There are significant and positive correlations between the variables. The regression analysis was conducted to confirm the non-presence of multicollinearity in the research variables. Table 3 shows that the tolerance and VIF (Variance Inflation Factor) are below the threshold (generally accepted tolerance values of up to 0.10, corresponding to a VIF of 10; and VIF of below 5 is suggested) (Hair et al., 2010).

Second, the structural equation modelling (SEM) analysis with Covariance Based-SEM was conducted in AMOS 18.0. This step was conducted to estimate both direct and indirect relationship between the constructs. The confirmatory factor analysis was conducted by the second order of confirmatory factors analysis (second-order CFA), considering the level of construct abstraction. Table 4 shows the construct validity and construct reliability values of the research.

The results of the construct reliability test shows that the overall dimensions and indicators of this research have the Standard Loading (\( \lambda \)) of \( > 0.5 \). Hence, the overall dimensions and indicators can be inferred to be valid. The Construct

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>X.1</th>
<th>X.2</th>
<th>Y.1</th>
<th>Y.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial_Orientation_(X.1)</td>
<td>3.85</td>
<td>0.48</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational_Leadership (X.2)</td>
<td>4.04</td>
<td>0.48</td>
<td>0.720**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation_(Y.1)</td>
<td>3.93</td>
<td>0.52</td>
<td>0.801**</td>
<td>0.704**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Organizational_Performance_(Y.2)</td>
<td>3.92</td>
<td>0.49</td>
<td>0.723**</td>
<td>0.686**</td>
<td>0.757**</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: \( n = 159 \); **Correlation is significant at the 0.01 level (2-tailed).
Reliability (CR) values for all dimension and latent constructs in this research, both on the analysis of first-CFA or second-CFA, are ≥ 0.7. Therefore, it can be concluded that all dimensions and latent constructs have a good reliability. The values of the Variance Extracted (VE) in general dimensions and latent constructs in this research, in both first-CFA and second-CFA analysis, are ≥ 0.5 (except Pro-activeness first-CFA, VE Value = 0.4, but the value of CR is already good at 0.7). Thus, it can be concluded that all dimensions and latent constructs have a good Variance Extracted. In the overall, it can be concluded that the indicators, dimensions and variables (latent constructs) in the full model have a good validity (Convergent Validity) and good reliability (Construct Reliability).

The full SEM results (goodness of fit index) show that the full model of the final stage of this research is acceptable, which means that there is no significant difference between the covariance matrix data from the observed variables and the covariance matrix of the specified model. Although the values of the Chi-Square and Probability have not reached the cut-off value, but the criteria of Goodness of Fit index for the category of Absolute Fit Measure such as RMSEA have already met the cut-off value (good fit). The criteria for goodness of fit, incremental fit measures and parsimonious fit measures, also show that the full model of this research’s final phase is quite good and acceptable. The use of 4–5 criteria of goodness of fit model is considered to be already sufficient to assess the feasibility of the model as long as each criterion of the goodness of fit model is absolute fit indices, incremental fit indices, and parsimony fit indices (Hair et al., 2010 in

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Innovation_(Y.1)</th>
<th>Organizational_Performance_(Y.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constants</td>
<td>0.24</td>
<td>0.51*</td>
</tr>
<tr>
<td>Entrepreneurial_Orientation_(X.1)</td>
<td>0.66***</td>
<td>0.48</td>
</tr>
<tr>
<td>Transformational_Leadership_(X.2)</td>
<td>0.28***</td>
<td>0.48</td>
</tr>
<tr>
<td>Innovation_(Y.1)</td>
<td>0.68</td>
<td>0.64</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.67</td>
<td>0.63</td>
</tr>
<tr>
<td>F</td>
<td>162.34</td>
<td>89.98</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.30</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Note: *p < 0.05; **p < 0.01; ***p < 0.001 (two-tailed); TOL = Tolerance; VIF = Variance Inflation Factor.
Table 4. Construct validity and construct reliability.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Standard loading ($\lambda$): $\lambda \geq 0.5$</th>
<th>$\lambda^2$</th>
<th>$1 - \lambda^2$</th>
<th>Error CR $\geq 0.7$</th>
<th>VE $\geq 0.5$</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2ndCFA Entrepreneurial Orientation (X.1) Indicators</td>
<td>X.1.1</td>
<td>0.749</td>
<td>0.561</td>
<td>0.439</td>
<td>0.9</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.1.2</td>
<td>0.850</td>
<td>0.723</td>
<td>0.278</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.1.3</td>
<td>0.748</td>
<td>0.560</td>
<td>0.440</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.1.4</td>
<td>0.946</td>
<td>0.895</td>
<td>0.105</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.1.5</td>
<td>0.927</td>
<td>0.859</td>
<td>0.141</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\Sigma$</td>
<td>4.220</td>
<td>3.597</td>
<td>1.403</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2ndCFA Transformational Leadership (X.2) Indicators</td>
<td>X.2.1</td>
<td>0.983</td>
<td>0.966</td>
<td>0.034</td>
<td>0.9</td>
<td>0.797</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.2.2</td>
<td>0.916</td>
<td>0.839</td>
<td>0.161</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.2.3</td>
<td>0.954</td>
<td>0.910</td>
<td>0.090</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X.2.4</td>
<td>0.687</td>
<td>0.472</td>
<td>0.528</td>
<td>Good Validity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\Sigma$</td>
<td>3.540</td>
<td>3.187</td>
<td>0.813</td>
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</tr>
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</table>
Table 4. (Continued)

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Standard loading (λ); Error</th>
<th>CR ≥ 0.7</th>
<th>VE ≥ 0.5</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2ndCFA Innovation (Y.1) Indicators</td>
<td>λ ≥ 0.5</td>
<td>λ^2</td>
<td>1 − λ^2</td>
<td>CR = (Σλ^2) / (Σλ^2 + ΣError)</td>
</tr>
<tr>
<td></td>
<td>Product/Service Innovation (Y.1.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.1.1</td>
<td>0.962</td>
<td>0.925</td>
<td>0.075</td>
<td>0.97</td>
</tr>
<tr>
<td></td>
<td>Process Innovation (Y.1.2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.1.2</td>
<td>0.991</td>
<td>0.982</td>
<td>0.018</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managerial/ Administrative Innovation (Y.1.3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.1.3</td>
<td>0.897</td>
<td>0.805</td>
<td>0.195</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>2ndCFA Organizational Performance (Y.2) Indicators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Performance Perspective (Y.2.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.2.1</td>
<td>0.729</td>
<td>0.531</td>
<td>0.469</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Customer Perspective (Y.2.2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.2.2</td>
<td>0.609</td>
<td>0.371</td>
<td>0.629</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal Business Processes Perspective (Y.2.3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.2.3</td>
<td>0.981</td>
<td>0.962</td>
<td>0.038</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning and Growth Perspective (Y.2.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y.2.4</td>
<td>0.796</td>
<td>0.634</td>
<td>0.366</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Σ</td>
<td>2.850</td>
<td>2.712</td>
<td>0.288</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Σ</td>
<td>3.115</td>
<td>2.498</td>
<td>1.502</td>
<td></td>
</tr>
</tbody>
</table>

Note: CR = Construct Reliability; VE = Variance Extracted.
The full model of the goodness of fit index summary with the cut-off value can be seen in Table 5.

The statistical test was used to test the hypothesis of this research. This significance test can be done by looking at the probability ($P$) values, which are compared with the alpha value ($\alpha = 0.05$). If the probability ($P$) value is less than the alpha value ($\alpha = 0.05$), $H_0$ is rejected (the research hypothesis is accepted) (Haryono and Wardoyo, 2013). The significance of the indirect influence was conducted using Sobel Test by incorporating the output of AMOS 18.0, which was related to the estimation value between the relationships of independent variables and dependent variables (Regression Weight), as well as the value of Standard Error (SE) in each relationship between these variables.

The findings from the standardized parameter estimates (Table 6) show that EO is closely related to and has a direct influence on organisational performance ($\gamma_{Y2X1} = 0.403; p < 0.05$) and Innovation ($\gamma_{Y1X1} = 0.735; p < 0.001$), as predicted in hypotheses 1 and 3. The results also show that innovation is closely related to and has a direct influence on organisational performance ($\beta_{Y2Y1} = 0.406; p < 0.05$), as predicted in hypothesis 5.

Furthermore, the results also show the indirect effects ($\gamma_{Y1X1}\beta_{Y2Y1} = 0.298; p < 0.05$) of EO on organisational performance through innovation, as predicted in hypotheses 6. The total effect of EO on organisational performance is 0.701 ($p < 0.05$). Comparing the magnitudes of these effects indicates that the total effect of EO on organisational performance is larger than the effect of innovation on organisational performance.
Even though the result shows that transformational leadership is closely related to and has a direct influence on innovation ($\gamma_{Y1X2} = 0.204; p < 0.05$), as predicted in hypothesis 4, there is no significant direct ($\gamma_{Y2X2} = 0.156; p > 0.05$) and indirect effect of innovation ($\gamma_{Y1X2} \beta_{Y2Y1} = 0.083; p > 0.05$) between transformational leadership and organisational performance. Hence, hypotheses 2 and 7 are rejected.

Table 6. Structural model results (direct, indirect and total effects).

<table>
<thead>
<tr>
<th>Effect from</th>
<th>To</th>
<th>Direct effects</th>
<th>Indirect effects</th>
<th>Total effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Orientation</td>
<td>Innovation</td>
<td>0.735 ***</td>
<td>4.588</td>
<td>0.735 ***</td>
</tr>
<tr>
<td>Entrepreneurial Orientation</td>
<td>Organizational Performance</td>
<td>0.403 (0.034)*</td>
<td>2.123 0.298 (0.043)*</td>
<td>2.023 0.701 *</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td>Innovation</td>
<td>0.204 (0.029)*</td>
<td>2.187</td>
<td>0.204 *</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td>Organizational Performance</td>
<td>0.156 (0.128)ns</td>
<td>1.521 0.083 (0.117)ns</td>
<td>1.569 0.238 ns</td>
</tr>
<tr>
<td>Innovation</td>
<td>Organizational Performance</td>
<td>0.406 (0.024)*</td>
<td>2.253</td>
<td>0.406 *</td>
</tr>
</tbody>
</table>

Notes: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ns (not significant); nm (not mention in amos); Standardized Regression Weight; Mediation Analysis using Sobel Test.

Fig. 2. Results of structural equation model.
The results of the hypothesis testing and analysis of the direct and indirect influence and the total influence is described by the model of the research results presented in Fig. 2.

Conclusions and Future Research

Stated-Owned Enterprises usually tend to be more bureaucratic in their business processes. In addition, they are rule-based, and their routines are administratively regulated. They usually have to confront regulations that were created by their stakeholders (government), and they also need to improve their performance. The RBV approach and industrial organisation model (market-based view) theory are used in assessing variables that influence SOEs organisational performance. This research contributes to the performance improvements concept of SOE in a business context especially in economically developing countries, particularly in Indonesia’s Energy Sector and shows how the business units of the SOE should advance their EO to improve their organisational performance. This research shows the strategic role of innovations in SOEs performance improvement and how transformational leadership in SOEs business units affects those innovations. In specific, this research supports all hypotheses except the direct relationship between transformational leadership and organisational performance and their indirect relationship through the mediation of innovation.

First, the research shows that EO directly influences innovation and organisational performance (Alswidi and Mahmood, 2012; Bayarçelik and Özşahin, 2014; Fernández-Mesa and Alegre, 2015; Smart and Conant, 1998). The findings conclude that SOE also need higher EO to improve their organisational performance directly. EO becomes invisible, and internal resources influence SOEs decisions to take chances or opportunities and motivate the organisational members to work hard and face the challenge that affects their performance improvement (Lee et al., 2001; Lumpkin and Dess, 1996). EO also becomes the practice and the operational philosophy of SOE organisations to anticipate changes and to drive their ability to innovate (Lowe and Marriott, 2006).

Second, this research confirms the indirect effect of EO on organisational performance through innovation (Aragón-Correa et al., 2007; Wahyu et al., 2013). This research also confirms the direct effect of innovation on organisational performance (García-Morales et al., 2012; Gunday et al., 2011; Jiménez-Jiménez and Sanz-Valle, 2011; Samad, 2012). EO develops the delivery of innovative-new services or creates new market as well as effective and efficient business processes in SOEs organisation (Lowe and Marriott, 2006; Girma et al., 2009).
SOE executives tend to confront government regulation when making decisions. SOE also need to face global challenge and disruptive era. This condition constrains them, so they need to achieve excellence performance and maintain it. In this context, EO becomes an important resource to encourage innovations in order to achieve organisational effectiveness and efficiency. These innovations also support the achievement of strategic competitiveness through new innovation processes which affect their organisational performance improvement. Their characteristics support these conditions. They need to be more proactive in anticipating changes, identifying challenges and taking opportunities (risk-taking) from external environment. They also need to motivate their employees to work hard and face challenges.

Third, this research supports the direct effect of transformational leadership on innovation (Ilmania et al., 2015; İşcan et al., 2014; Nasrul et al., 2011; Yıldız et al., 2014). SOEs business unit leaders communicate the high-performance expectations, use symbols for focusing its efforts and provide an understanding of the essential goals to the their employee in their units (Teofilovic, 2002; Cherrington, 1994; Oke et al., 2009). They also deliver vision and provide a deeper understanding about the company’s mission, help the learning process, encourage rationality and solve the problem by considering details. Those leader’s behaviours encourage the transformation of knowledge into new products, processes, services and the representation of changes in the status quo in the form of radical or incremental changes of technical and administrative context within organisational activities (Cherrington, 1994; Damanpour and Gopalakrishnan, 1998).

SOE leaders who have the capacity and capability of motivating, encouraging idea experimentation from employee, and communicating vision and objectives will become effective leaders who will increase innovation activities in public sector especially in SOE organisation.

Fourth and finally, this research shows that transformational leadership does not influences organisational performance, neither directly nor indirectly through innovation (Griffith, 2004). This result supports the argument that changes in leadership have no impact on organisational indicators such as profits, and they are constrained by contextual factors (Hermawanto, 2007). The contextual factors may be related to the nature of SOEs organisational structure, which has bureaucratic administration. The rigidity and routinization of bureaucracy can hold the influence of SOEs effective leaders through performance perspective (e.g., financial, customer, learning and growth and internal business process).

This research has some limitations. First, the object of this research is limited to electricity sector in Indonesia (business model), especially in the business units of Java and Bali distributions area. Future researches are expected to take more that distribution units, such as the business of transmission unit or the generator unit of
Indonesia’s State-Owned Electricity Company. They can also be conducted in other Indonesian SOE, other countries, or other sectors.

Furthermore, this research is also limited in measuring transformational leadership using manager’s perceptions. Therefore, future researches can involve subordinates and organisation members to clarify managers’ self-report.

Finally, future researches can add mediators other than innovation in relating transformational leadership and organisational performance, so a better understanding about the effect of transformational leadership on organisational performance, especially in SOEs nature and context, can be gained.

Appendix A

- EO (X.1)
  - Autonomy (X.1.1)
    X.1.1.2 Management approves independent activities by employees to develop new services.
    X.1.1.3 Identifying new business opportunities is the concern of all employees.
    X.1.1.4 All employees are encouraged to develop ideas for new service.
  - Innovativeness (X.1.2)
    X.1.2.1 Our business unit is known as an innovator among other business units in our company.
    X.1.2.2 Our business unit promotes new services in our business.
    X.1.2.3 Our business unit promotes innovative services in our business.
    X.1.2.4 Our business unit leads in developing new services.
    X.1.2.5 Our business unit conducts sustainable experiments with new services.
  - Risk Taking (X.1.3)
    X.1.3.1 Taking risks is a part of our strategy to be successful.
    X.1.3.2 Our business unit takes above-the-average risks in our business.
    X.1.3.3 Taking chances is an element of our business strategy.
    X.1.3.4 Our business unit’s strategy can be characterized by a strong tendency to take risks.
  - Pro-activeness (X.1.4)
    X.1.4.1 Our business unit usually takes anticipative action for future market conditions.
X.1.4.2 Our business unit tries to shape our business environment to enhance our presence in the market.
X.1.4.3 We sustainably seek out new opportunities due to changes in market conditions.
X.1.4.4 Our business unit tries to position itself to consistently meet the emerging demands.

– Motivation (X.1.5)

X.1.5.1 We consider ourselves as having high work motivation.
X.1.5.2 Our employees are a group of hard-working individuals.
X.1.5.3 We are very ambitious about working in our business unit.
X.1.5.4 We like challenges in our business unit.

• Transformational Leadership (X.2)

– Charisma/Idealized Influence (X.2.1)

X.2.1.1 The leaders give information related to organisational vision and mission.
X.2.1.2 The leaders give comprehension related to organisational vision and mission.
X.2.1.4 The leaders gain employee’s trust.
X.2.1.5 The leaders become employee’s pride.

– Inspirational Motivation (X.2.2)

X.2.2.1 The leaders articulate high-expectation performance.
X.2.2.2 The leaders give essential objective understandings.

– Intellectual Stimulation (X.2.3)

X.2.3.1 The leaders support learning processes.
X.2.3.2 The leaders encourage rationality.
X.2.3.3 The leaders support problem solving and consider details.

– Individualized Consideration (X.2.4)

X.2.4.1 The leaders give personal attention.
X.2.4.2 The leaders treat every person individually.

• Innovation (Y.1)

– Product/Service Innovation (Y.1.1)
Y.1.1.1 The novelty degree of our business unit’s products and services is always more advanced than other business units.
Y.1.1.2 Our business unit always tries to increase the quality of its products and services.
Y.1.1.3 Our business unit has a fast ability to develop new products and services compared to other business units.

– Process Innovation (Y.1.2)
Y.1.2.1 Our business unit always takes initiatives in developing new ways of business processes.
Y.1.2.2 Our business unit always prioritizes the utilization of better tools.
Y.1.2.3 Our business unit always prioritizes service speed for customers.

– Managerial/Administrative Innovation (Y.1.3)
Y.1.3.1 Our business unit always has the ability to create new administrative system which supports business excellence.
Y.1.3.2 Our innovations in business management system are always more advanced than those of other business units.
Y.1.3.3 Our business unit has the ability to implement ideas for new effective resource allocations.
Y.1.3.4 Our business unit has the ability to implement ideas for new efficient resource allocation.

• Organisational Performance (Y.2)

– Financial Performance Perspective (Y.2.1)
Y.2.1.1 Our business unit annually increases its profits.
Y.2.1.2 Our perception about business unit sales growth is quite good.
Y.2.1.3 Our perception about business unit net sales growth is quite good.
Y.2.1.4 Our perception about business unit asset growth is quite good.

– Customer Perspective (Y.2.2)
Y.2.2.1 Our customers rarely complain about the waiting time for new electricity installation that our business unit offered.
Y.2.2.2 Our customers rarely complain about the waiting time for electrical power extension that our business unit offered.
Y.2.2.3 Our customers rarely complain about the reliability of electricity that our business unit supplied.
Y.2.2.4 Our customers rarely complain about the recovery time of electricity outage that our business unit supplied.

– Internal Business Process Perspective (Y.2.3)

Y.2.3.1 All of the business unit’s employees are always friendly and polite in serving our customers.
Y.2.3.2 Our business unit provides a clear explanation for our customers about the service procedures.
Y.2.3.3 Our business unit uses the latest technology to provide a better service quality for our customers.
Y.2.3.4 New services provided by our business unit are appropriate with our customers’ needs.

– Learning and Growth Perspective (Y.2.4)

Y.2.4.1 Employee training infrastructures and facilities comply with the company’s standard.
Y.2.4.4 Our employees rarely complain about their relation with their superiors.
Y.2.4.5 Our employees rarely complain about the convenience of their working environments.
Y.2.4.6 Our employees rarely complain about the facility provided by the company for their tasks.

References


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