Zach’s Star Model Testing on Product Innovation, Process, and the Implication to the Managerial Performance Achievement of PT. Len Industries

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Abstract

This research intends to examine whether there are significant elements the Zach's Star models (Zacharakis and Lange, 2012) that include Passion, Knowledge, Network, Energy, and Commitment to Product and Process Innovation as well as the implications for the Managerial Performance. The research method used was a descriptive survey method and explanatory survey with a population size of 60 respondents, the functional Manager PT Len. Data analysis methods used in the research is the path analysis by using of SPSS 19.0 software.

The survey shows that Passion, Knowledge, Network, Energy, and Commitment, Product Innovation and Process Innovation Managers held high and can lead to a high enough Managerial performance against the Functional Manager PT Len. The results of path analysis by using of SPSS 19.0 software shows that the Knowledge and Commitment simultaneously influence the Product Innovation and Process Innovation. Partially Commitment has a more dominant influence on Product Innovation, Knowledge partially but has a more dominant influence of the Innovation Process. Likewise Product Innovation and Process Innovation simultaneously influence the Managerial Performance. Partially Innovation Process has a more dominant influence on Managerial Performance.

Keywords: Zach's Star models (Passion, Knowledge, Network, Energy, Commitment), Product Innovation, Process Innovation, and Managerial Performance.
Introduction

PT Len Industri (Persero) is a State-Owned Enterprise (SOE) with specialization in electronics industry and infrastructure, had 6 lines of business managing the Railway Transportation, Renewable Energy, Navigation System, Defense Electronics, Control Systems and Telecommunications. The works was managed by Len are Engineering, Manufacture, Service and Trading. The most of work handled by Len is project-based EPC (Business Units and Subsidiaries) and the remaining is manufactures (Primary Len).

In 2011, PT. Len has 450 employees with graduate majority. The superiority of Len is supported by the competence of workforce, especially at the managerial level. In fact, however, success on the functional managerial performance PT. Len Industri (Persero) is still low as it is based on the data of Key Performance Indicators (KPI) for the last two years. Based on the performance report in 2011-2012, developing a program budget product still below the average of similar industries is only 1% of the revenue, the budget for the Human Resource development lower managerial levels, cost of goods sold (COGS) is still higher than the industry average manufacture (>85%), contribution revenue earned from the sale of innovative products, can only reach 50% and net profit margin is still below the industry average (NPM<5%). In addition to the existing problems in PT Len was not optimal utilization of production, logistics planning is still weak (high supply), and weak in negotiating contracts. Thus, it is provides an impact on the performance appraisal of Len, based on the ratings contained in Infobank SOE # 402 September 2012 Vol. XXXIV, in which scores and predicate PT. Len Industri is intermediate in 2010 to be good in 2011.

Manzano, Kuster, and Vila (2005: 442) describes that in general the success of organizational performance, including the successful performance of managerial determined by the ability of management to innovate. Likewise Eshlaghy and Maatofy (2011:116) arguing that innovation is can improve the success of the performance. Based on statement above, it can be said that the lack of managerial performance successful at PT. Len Industries allegedly caused by low innovation management. This is indicated by a decrease in product innovation content (manufacturing) dramatically, reach of 15.9% in 2009, then up to 2012 with content only able to achieve product innovation with a 54.21% increase below 1%.

The next question is what kind of innovations to do PT Len Industri (Persero) to improve the performance of managerial success, while the current state of business success Len is supported by the knowledge and competencies of its human resources. Zacharakis and Lange (2012) describes that to improve of success the business through innovation, it is necessary to Zach’s Star of Success, the variable knowledge, network, energy, commitment and passion. Refers to the theory Zach’s star model fits with the character of the business of PT Len, where Zach’s Star Model arguing that success in business is not only because of knowledge and competence of human resources but also influenced by other factors such as Network, Energy, Commitment and Passion. This is shown by Len
market share that the majority of government institutions, based on reports Len performance in the period 2008/2012 showed 90% of its revenue from government institutional projects and only 10% of the private market and is still the focus on the domestic market. Thus, low innovation by management predicted that it is due to the low knowledge, network, energy, commitment and passion (Zach’s Star Model) established by PT. Len Industries.

By the reasons above, the problem of research formulated as follows:
2. How product innovation and process innovation made by PT. Len Industries.
4. How the influence of passion, knowledge, network, energy, and commitment towards product innovation, either simultaneously or partially.
5. How the influence of passion, knowledge, network, energy, and commitment to innovation processes, either simultaneously or partially.
6. How to influence product innovation and process innovation to successful managerial performance, either simultaneously or partially.

**Literature Review**

**Passion (Motivation)**

The passion is a motivation to realize the ideas, self-actualization (Zacharakis and Lange, 2012). While Okpara (2007) describes that the motivation is the drive and desire to do something, an inner passion and interest. Motivation is an encouragement and a strong desire to do something, in the spirit and interest. Baum and Locke (2004: 588) confirm that passion is perhaps the most observed phenomenon of the entrepreneurial process. Perhaps the most observed phenomenon of entrepreneurial process. While Landy and Becker (1990) made a theoretical approach of grouping these motivations into 5 categories of needs theory, reinforcement theory, equity theory, expectancy theory, and theory of goal setting.

Based on motivation concepts above the construct of passion (motivation) in this study is to realize the idea of motivation, self-actualization with motivation components is expected, instrumentalist, and valence.

**Knowledge**

Knowledge is skill on business to be run. General knowledge (business environment) competition, government regulations and a specific nature (internal environment): production, marketing, finance and human resources (Zacharakis and Lange, 2012). Landstrom and Harirchi (2011), arguing that in the entrepreneurship required knowledge to push the ideas/creative and innovative ideas that can make up the entrepreneur who has the most actual and trends in consumer needs.

Based on the two concepts above, then the knowledge entrepreneurship constructs used in this study is the knowledge of business to be run. The component of entrepreneurship knowledge involves general knowledge (business environment), competition, government regulations and specific nature (internal
environment)-the production, marketing, finance and human resources.

**Network**

Network more than extensive business including buyers, suppliers, governments, banks and others. Increasingly possible to achieve the success, Networking is facilitative (Zacharakis and Lange, 2012). While Schallenkamp and Smith (2012:5) arguing that the entrepreneur’s network as the total sum of his or her relationships and that it involves all the connections that a person has with other people. Network entrepreneurs i.e. the total amount of his relationship and that it also includes all the connection that one has with others.

By the concept of network, the study as a construct is more extensive network of business networking with buyers, suppliers, governments, banks and others. Components of the network include the ability of management to build network with buyers, suppliers, governments, banks, distributors, and even competitors.

**Energy (Power)**

Energy is a physical and mental. Physical and mental capabilities to maintain the spirit to solve various problems (Zacharakis and Lange, 2012). While Faozi MM (2009) describes that there are two parts of the energy, energy microcosm and macrocosm, more revealed to help us in uses the full potential of the energy of doing business. Energy microcosm interpreted existing energy within the individual and the macrocosm is outside the individual or in the universe. Sudardjat (2010) arguing that entrepreneurship is crucial energy possessed by an entrepreneur, which is a positive energy that is able to make entrepreneurs can survive the challenges it faces.

Based on some opinions above, the energy constructs in this research is something that drives their businesses to take steps in achieves business success. Energy consists of two components, physical and mental energy. Physical and mental ability to maintain the spirit to solve various problems

**Commitment**

Zacharakis and Lange’s (2012) commitment is constant attention without interruption. The commitment also is a situation where an individual sided with business/management they work for some and purpose and his desire to maintain membership in the organization, can be also defined an entrepreneur who has positioned himself as a true entrepreneur. According to Robbins (2003) defined that the occupation is high involvement means in favor of a particular person's individual work, while high organizational commitment means siding organizations that recruit these individuals. According Luthan (2004), commitment is defined as a strong desire to remain as members of a particular organization, the desire to strive liking organizations, and certain beliefs, and acceptance of the value and purpose of the organization. According to Allen and Meyer (2003), there are three dimensions of commitment to the effective commitment (effective commitment, continuous commitment, and normative commitment.
Product Innovation

In McLaughlin (2011), organizations are innovating to achieve success and innovation in all products and services will definitely increase the value, but the higher the innovation will be economically beneficial in the long run. And Ilyas Hussain (2011:1233) Innovation is an idea and introduces new technology; innovation is the genius of the change. Innovation can be in the form of ideas, processes and products in various fields. Manzano, Kuster and Vila (2005:438) Product innovation is the innovation of the output of an organization in the form of products or services that could be seen to be enjoyed. Joe Todd (2000) Product innovation includes the creation of a new product for an organization, introduced to the market through the utilization and commercialization, integration of existing technologies, patterns of thinking as a process, representing an important relationship between an idea and its commercialization and exploitation, and the bottom line innovation is a market.

By some theories above, the construct of product innovation in the research is the creation of a new product made by the management for a certain market. Dimensions of product innovations include the launch of the high-tech brand and product diversification.

Process Innovation

According to Manzano, Kuster and Vila (2005:443), the innovation is a process of innovation that made the process that produces output organization, such as the management's supply chain innovations. Many consider more important than the product innovation process innovation, process innovation, but many managed to increase the competitiveness of a management as shown by Dell and Wal-Mart, the two companies are successful because of the innovation of their supply chain processes. Joe Todd (2000) arguing can be distinguished from the innovation process improvement (improvement) process, which is seeking changes that lower level.

By the concept, the process of innovation constructs in this study was conducted on the innovation process that produces output organization. Indicator of the innovation process is using advanced machines, production systems/operations to adapt the changing environment, using new materials, training staff with new things, and order and stock control systems are modern.

The Managerial Performance Successful

According to Mahoney et al.(in Ramandei, 2009), managerial performance is the performance of the individual members of the organization in managerial activities, such as planning, investigation, coordination, evaluation, supervision, staffing arrangements, negotiation, representation and overall performance. While in view of Robertson et al.(in Ramandei, 2009), the performance of a person is more than situational, it is depending on internal conditions and external factors surrounding the individual organization to do the job. External factor such as the target and competition needs high performance from the individuals themselves. While internal factors such as work environment, salary, opportunities,
supervision includes the dimensions of job satisfaction. Performance of an organization's operational effectiveness, parts of the organization and its employees based on standards, goals, and criteria established previously (Siegel and Marconi in Ramandei, 2009).

According to Armstrong and Baron (1998), there are several factors that can influence managerial performance:

1. Personal (skills, confidence, motivation and commitment).
2. Leadership (quality of courage/spirit, the spirit of giving guidance to managers and group leaders of the organization).
3. Team/Group (work systems and the facilities provided by the organization).
4. Situational (environmental changes and pressures from internal and external).

By the reasons above, the construct of managerial performance on research success is the managerial performance successful is a success in the performance of the individual members of the organization in managerial activities, including planning, investigation, coordination, evaluation, supervision, staffing arrangements, negotiation, representation and performance overall. While the indicator of success includes the managerial performance in the planning successful performance investigation, coordination, evaluation, supervision, staffing, arrangements, negotiations, and representation.

**Framework**

![Figure 1. Research paradigm](attachment:image.png)
Hypothesis
Based on the study of theory and the framework, the research hypothesis:
1. Passion, knowledge, network, energy, and commitment influence on product innovation, either simultaneously or partially.
2. Passion, knowledge, network, energy, and commitment influence the innovation process, either simultaneously or partially.
3. Product innovation and process innovation influence the managerial performance successful, either simultaneously or partially.

Methods
The method used in this research is descriptive and verification. Descriptive method used to describe the problems associated with the characteristic variables Passion, knowledge, network, energy, and commitment, innovative products and processes, as well as the managerial performance successful. Verification methods used to find relationships between variables, in this case aimed to determine the extent of the influence of Passion, knowledge, network, energy, and commitment on product and process innovation, and the implications for the managerial performance successful at PT. Len Industries.

Model of investigation is causality, to examine of causal relationship between the study variable. The unit of analysis is PT. Len Industries, the observation unit functional managers PT. Len Industries. Time horizon of research is cross-sectional, the research conducted at one time.

Operational of variables intended to provide a definition or activities that specifies the variables studied so that these variables can be measured. The study involved five exogenous variables Passion, knowledge, network, energy, and commitment, as well as an endogenous variable that is innovative products and processes, as well as the managerial performance successful. Each variable has several sub-variables as manifest variables (predictors).

Data Collecting Techniques, Population, and Sample
The study is the perception/opinion of research object, which in this case is the functional manager of PT Len Industry, thus the type of data in this study is the data subject (self-report data), and the data were obtained directly from the source of the data primary and secondary data to support data. While the source of the data,(1) Secondary data sources are from the Central Statistics Agency (BPS), PT. Len Industries and (2) The primary data source is the functional manager of PT. Len Industries.

The populations of research are functional managers in PT Len Industry of 60 managers. Thus, the study will be used in determining the method of census of the sample, i.e. all the population is taken as the respondent.
Draft Analysis and Hypothesis Testing

Schematically the relationship model between variables described as follows:

![Figure 3. Line Diagram of Passion Influence, Knowledge, Network, Energy and Commitment to Product Innovation and Process, and Implications on the managerial performance successful.]

The hypothesis of this study:
(1) Passion, Knowledge, Network, Energy and Commitment influence to the Product Innovation, simultaneously or partially.
(2) Passion, Knowledge, Network, Energy and Commitment influence to the Product Innovation, simultaneously or partially.
(3) Product innovation and process innovation influence to the managerial performance successful, simultaneously or partially.

If the research hypothesis stated in the statistical hypothesis are:

\[ H_0 : P_{YX1} = P_{YX2} = \ldots = P_{YX5} = 0 \]
\[ H_1 : \text{at least there is a } P_{YXi} \neq 0, i = 1, 2, \ldots, 5 \]

Test statistic used:
The statistics testing follow the F distribution with degrees of freedom = k db1 and db2 = nk - 1.

Hypothesis testing criteria are:

a. If \( F_{\text{account}} \geq F_{\text{table}} \) with significance level of 5%, then the significant testing or no real influence on the X1, X2..., X5 or at least of one of them on the dependent variable Y1 and Y2

b. If \( F_{\text{account}} < F_{\text{table}} \) with a significant level of 5%, then the test is insignificant or no significant influence of X1, X2..., X5 on the dependent variable Y1 and Y2
If the hypothesis is obtained significant results, then further testing can be done partially:
1) $H_0: P_{Y_iX1} < 0$ against $H_1: P_{Y_iX1} > 0$, $i = 1, 2$
2) $H_0: P_{Y_iX2} < 0$ against $H_1: P_{Y_iX2} > 0$, $i = 1, 2$
3) $H_0: P_{Y_iX3} < 0$ against $H_1: P_{Y_iX3} > 0$, $i = 1, 2$
4) $H_0: P_{Y_iX4} < 0$ against $H_1: P_{Y_iX4} > 0$, $i = 1, 2$
5) $H_0: P_{Y_iX5} < 0$ against $H_1: P_{Y_iX5} > 0$, $i = 1, 2$

Statistics testing for each hypothesis are:
i = 1, 2, ..., 5

$$t_i = \frac{P_{yxi}}{\sqrt{\frac{1 - R^2_{yXi,...,Xk}}{n - k - 1} CR_g}}$$

The above statistics testing follow t distribution with db (nk - 1). While the test criteria for the variables X1, X2, ..., X5 individually to Y1 and Y2 are:
(1) If $t_{\text{account}} > t_{\text{table}}$ with a significant level of 5%, the test is significant or no influence of each of X1, X2, ..., X5 on the dependent variable Y1 and Y2.
(2) If $t_{\text{account}} < t_{\text{table}}$ with a significant level of 5%, then the test is insignificant or no influence of each of X1, X2, ..., X5 on the dependent variable Y1 and Y2.

$$t = \frac{r\sqrt{n - 2}}{\sqrt{1 - r^2}}$$

Then after carry out the test to see the significance of the correlation coefficient with statistical hypothesis:
$H_0: P_{xyi} = 0$ ; $i = 1, 2$
$H_1: P_{xyi} \neq 0$ ; $i = 1, 2$

The statistical test used:
By using the t distribution table with $t_{\alpha/2}$ ($n - 2$)

$$t = \frac{r\sqrt{n - 2}}{\sqrt{1 - r^2}}$$

Reject $H_0$ if $|t|$ values greater than $t_{\text{table}}$ or $t_{\alpha/2}(n - 2)$.

Research Hypothesis Testing
Influence of Passion, Knowledge, Network, Energy, and Commitment to Product Innovation at PT Len

Hypothesis Testing in Simultaneous

The first step to test the simultaneous hypothesis is to calculate the linear regression between the variables simultaneously. Processing the output of SPSS 17:00 as follows:
Table 1.
Results of Linear Regression Passion, Knowledge, Network, Energy, Commitment, Innovation for Simultaneous Product

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.866(a)</td>
<td>.749</td>
<td>.726</td>
<td>3.15832</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), X5, X3, X1, X4, X2

Sources: Processing Results of Primary Data, 2013

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1608.169</td>
<td>5</td>
<td>321.634</td>
<td>32.244</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>538.650</td>
<td>54</td>
<td>9.975</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2146.819</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), X5, X3, X1, X4, X2
b Dependent Variable: Y1
Sources : Processing Results of Primary Data, 2013

Based on Table 1 above, parts ANOVA \(^b\) seen that the p-value sig. 0.000<0.05, and F value 32 244>F 2.386 (F<sub>table</sub> seen from Table F with denominator df = 60-5-1 = 54 and df numerator = 5 at 5% significance level. Correlation, R = 0.866, which means there is quite a strong correlation between Passion, Knowledge, Network, Energy, and Commitment to product Innovation. decisions of simultaneous hypothesis test is H0 is rejected and Ha is accepted, it means the group Passion, Knowledge, Network, Energy, and Commitment simultaneous influence on product innovation magnitude influence simultaneously is 74.90%(R² = 0.749), while the remaining 25.10% influenced by other factors that were not studied.

The next step is to test the partial path coefficients between Passion (X1), Knowledge (X2), Network (X3), Energy (X4), Commitment(X5) to Product Innovation (Y1). Linir output regression calculation results are as follows:

Table 2.
Linear Regression Calculation Result Passion (X1), Knowledge (X2), Network (X3), Energy (X4), Commitment(X5)to Product Innovation (Y1) in Partial

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.863</td>
<td>2.461</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>-0.212</td>
<td>.130</td>
<td>-.226</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.294</td>
<td>.101</td>
<td>.447</td>
</tr>
<tr>
<td></td>
<td>X3</td>
<td>-.226</td>
<td>.246</td>
<td>-.125</td>
</tr>
<tr>
<td></td>
<td>X4</td>
<td>.183</td>
<td>.263</td>
<td>.097</td>
</tr>
<tr>
<td></td>
<td>X5</td>
<td>1.297</td>
<td>.272</td>
<td>.686</td>
</tr>
</tbody>
</table>

a Dependent Variable: Y1
Sources: Processing Results of Primary Data, 2013
To the hypothesis test partially, for the variable Passion (X1) test results of p-value 0.110>0.05 or \( t_{\text{account}} < t_{\text{table}} 2.001 \). Knowledge variable (X2) p-value 0.005>0.05 or \( t_{\text{account}} 2.893>2.001 \) \( t_{\text{table}} \). Network variables (X3) p-value 0.362>0.05 or \( t_{\text{account}} -0.919 < t_{\text{table}} 2.001 \). Variable Energy (X4) p-value 0.0489>0.05 or \( t_{\text{account}} 0.697 < t_{\text{table}} 2.001 \).

Decision of the partial hypothesis test:
1) The first hypothesis: H0 is accepted and Ha rejected, meaning Passion (X1) is not partial influence on Product Innovation (Y1).
2) The second hypothesis: H0 is rejected and Ha is accepted, it means Knowledge (X2) partial influence on Product Innovation (Y1)
3) The third hypothesis: H0 is accepted and Ha rejected, meaning Network (X3) no partial influence on Product Innovation (Y1).
4) The fourth hypothesis: H0 is accepted and Ha rejected, meaning Energy (X4) no partial influence on Product Innovation (Y1)
5) The fifth hypothesis: H0 is rejected and Ha is accepted, it means Commitment(X5) partial influence on Product Innovation (Y1).

Based on the partial testing results, it is necessary to re-process (theory trimming), i.e. by issuing X1, X3, and X4 models of sub-structures. So Proposition hypothesis turned out to be: Knowledge (X2) and Commitment(X5) influence on Product Innovation (Y1).

**Hypothesis Testing (Revised) for Simultaneous**
The first step to test the simultaneous hypothesis is to calculate the linear regression between the variables simultaneously. Output results (from 17:00 SPSS processing is as follows:

Table 3. Linear Regression Results of knowledge(X2) and Commitment(X5), Product Innovation (Y1) in Simultaneous

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.856(a)</td>
<td>.733</td>
<td>.723</td>
<td>3.17208</td>
</tr>
</tbody>
</table>

\( a \) Predictors:(Constant), X5, X2

Sources: Processing Results of Primary Data, 2013

ANOVA (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1573.280</td>
<td>2</td>
<td>786.640</td>
<td>78.179</td>
<td>.000(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>573.540</td>
<td>57</td>
<td>10.062</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2146.819</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( a \) Predictors:(Constant), X5, X2

b Dependent Variable: Y1
Based on Table 3 above, section ANOVA showed that the p-value sig. 0.000<0.05, and F value 78.179>F 3.159 (Ftable seen from Table F with denominator df = 60-2-1 = 57 and df numerator = 2 at significance level of 5%). While the correlation R = 0.856, which means there is quite a strong correlation between Knowledge and Commitment to Product Innovation. A decision of simultaneous hypothesis test is H0 is rejected and Ha is accepted, it means Knowledge and Commitment simultaneous influence on product innovation. Simultaneously influence magnitude is 73.30% (R² = 0.733). While the remaining 26.70% influenced by other factors that were not studied.

The next step is to test the partial path coefficients between Knowledge (X2) and Commitment(X5) to Product Innovation (Y1). Linier output regression calculation results are as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Influence</th>
<th>Formula</th>
<th>Directly</th>
<th>Indirectly</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (X2)</td>
<td>(px'x2)²</td>
<td>0.087</td>
<td></td>
<td></td>
<td>melalui X2</td>
<td>0.226</td>
</tr>
<tr>
<td></td>
<td>(py1x2)kpx'x2kpy'1x2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment (X5)</td>
<td>(px'x5)²</td>
<td>0.367</td>
<td></td>
<td></td>
<td>melalui X5</td>
<td>0.507</td>
</tr>
<tr>
<td></td>
<td>(py1x5)kpx'x5kpy'1x5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence simultaneously X2X5 to Y1</td>
<td>R²y1x2x5</td>
<td>0.733</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence outside variable to Y1</td>
<td>py1x5</td>
<td>0.267</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Data Processing Results with SPSS 19:00
Influence of passion, Knowledge, Network, Energy, and Commitment to Innovation Process in PT Len

The first step to test the simultaneous hypothesis is to calculate the linear regression between the variables simultaneously. Processing the output of SPSS 17:00 is as follows:

Table 6.
Linear Regression Results Passion, Knowledge, Network, Energy, Commitment, Innovation Processes in Simultaneous

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.811(a)</td>
<td>.657</td>
<td>.626</td>
<td>2.94705</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), X5, X3, X1, X4, X2

Sources: Processing Results of Primary Data, 2013

ANOVA (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>899.473</td>
<td>5</td>
<td>179.895</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>468.996</td>
<td>54</td>
<td>8.685</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1368.469</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), X5, X3, X1, X4, X2
b Dependent Variable: Y2

Sources: Processing Results of Primary Data, 2013

Based on Table 6 above, section ANOVA(b) seen that the p-value sig. 0.000<0.05 and 20 713 F count>F 2.386 (Ftable seen from Table F with denominator df = 60-5-1 = 54 and df numerator = 5 at significance level of 5%). While the correlation R = 0.811, which means there is quite a strong correlation between the Passion, Knowledge, Network, Energy, and Commitment to Innovation Process. Decisions of simultaneous hypothesis test is H0 is rejected and Ha is accepted, it means the group Passion, Knowledge, Network, Energy, and simultaneously influence Commitment to innovation processes. Simultaneously influence magnitude is 65.70%(R2 = 0.657). While the remaining 34.30% influenced by other factors that were not studied.

The next step is to test the partial path coefficients between Passion (X1), Knowledge (X2), Network (X3), Energy (X4), and Commitment(X5) to Process Innovation (Y2). Linir output regression calculation results are as follows:
To test the hypothesis partially, for the variable Passion (X1) test results of p-value 0.290>0.05 or \( t_{\text{account}} = -1.070 < t_{\text{table}} = 2.001 \). Knowledge variable (X2)p-value 0.001>0.05 or \( t_{\text{account}} = 3.523 > 2.001 \) \( t_{\text{table}} \). Network variables (X3)p-value 0.210>0.05 or \( t_{\text{account}} = -1.268 < t_{\text{table}} = 2.001 \). Variable Energy (X4)p-value 0.209>0.05 or \( t_{\text{account}} = 1.272 > 2.001 \) \( t_{\text{table}} \). Commitment variable (X5)p-value 0.037>0.05 or \( t_{\text{account}} = 2.135 > 2.001 \) \( t_{\text{table}} \). Decision of the partial hypothesis test:

1) The first hypothesis: \( H_0 \) is accepted and \( H_a \) rejected, meaning Passion (X1) is not partial influence on Process Innovation (Y2).

2) The second hypothesis: \( H_0 \) is rejected and \( H_a \) is accepted, it means Knowledge (X2) partial influence on Process Innovation (Y2)

3) The third hypothesis: \( H_0 \) is accepted and \( H_a \) rejected, meaning Network (X3) no partial influence on Process Innovation (Y2).

4) The fourth hypothesis: \( H_0 \) is accepted and \( H_a \) rejected, meaning Energy (X4) no partial influence on Process Innovation (Y2)

5) The fifth hypothesis: \( H_0 \) is rejected and \( H_a \) is accepted, it means Commitment(X5) partial influence on Process Innovation (Y2).

Based on the partial testing results, it is necessary to re-process (theory trimming), i.e. by issuing X1, X3, and X4 models of sub-structures. So the proposition hypothesis turned out to be: Knowledge (X2) and Commitment(X5) influence the Innovation Process (Y2).

**Hypothesis Testing (Revised) for Simultaneous**

The first step to test the simultaneous hypothesis is to calculate the linear regression between the variables simultaneously. Results of processing SPSS 19.00 output is as follows:

**Table 7.**
Linear Regression Calculation Result Passion (X1), Knowledge (X2), Network (X3), Energy (X4), Commitment(X5) for Process Innovation (Y2) Partial Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.324</td>
<td>2.296</td>
<td>-1.41</td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>-0.130</td>
<td>0.122</td>
<td>-1.070</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>0.334</td>
<td>0.095</td>
<td>3.523</td>
</tr>
<tr>
<td></td>
<td>X3</td>
<td>-0.291</td>
<td>0.229</td>
<td>-1.268</td>
</tr>
<tr>
<td></td>
<td>X4</td>
<td>0.312</td>
<td>0.245</td>
<td>1.272</td>
</tr>
<tr>
<td></td>
<td>X5</td>
<td>0.542</td>
<td>0.254</td>
<td>2.135</td>
</tr>
</tbody>
</table>

a Dependent Variable: Y2

*Sources: Processing Results of Primary Data, 2013*
Table 8.
Linear Regression Results knowleg (X2) and Commitment(X5), Process Innovation (Y2) for Simultaneous

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.797(a)</td>
<td>.636</td>
<td>.623</td>
<td>2.95813</td>
</tr>
</tbody>
</table>

a Predictors:(Constant), X5, X2
Sources:Processing Results of Primary Data, 2013

ANOVA (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>869.689</td>
<td>2</td>
<td>434.845</td>
<td>49.694</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>498.780</td>
<td>57</td>
<td>8.751</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1368.469</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors:(Constant), X5, X2
b Dependent Variable: Y2
Sources:Processing Results of Primary Data, 2013

Based on Table 8 above, section ANOVA b seen that the p-value sig. 0.000<0.05, and F value 49 694>F 3,159 (F_table seen from Table F with denominator df = 60-2-1 = 57 and df numerator = 2 at significance level of 5%). While the correlation R = 0.797, which means there is quite a strong correlation between Knowledge and Commitment to Innovation Process. Decisions of simultaneous hypothesis test is H0 is rejected and Ha is accepted, it means Knowledge and Commitment simultaneously influence the process of innovation. Simultaneously influence magnitude is 63.60% (R2 = 0.636). While the remaining 36.40% influenced by other factors that were not studied.

The next step is to test the partial path coefficients between Knowledge (X2) and Commitment(X5) to Process Innovation (Y2). The output of the linear regression calculation is as follows:

Table 9.
Linear Regression Calculation Result Knowledge (X2) and Commitment(X5)to Process Innovation (Y2) in Partial Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.008</td>
<td>2.224</td>
<td>.004</td>
</tr>
<tr>
<td>X2</td>
<td>.270</td>
<td>.067</td>
<td>.515</td>
<td>4.038</td>
</tr>
<tr>
<td>X5</td>
<td>.494</td>
<td>.193</td>
<td>.328</td>
<td>2.568</td>
</tr>
</tbody>
</table>

a Dependent Variable: Y2
Sources : Processing Results of Primary Data, 2013

To test the hypothesis partially for the variable Knowledge (X2) p-value 0.000>0.05 or $t_{\text{account}}$ 4,038>2,002 $t_{\text{table}}$. Then Commitment variable (X5) p-value 0.013>0.05 or $t_{\text{account}}$ 2,568>2,001 $t_{\text{table}}$. Decision of the partial hypothesis test:
1) Unity Hypothesis: H0 is rejected and Ha is accepted, it means Knowledge (X2) partial influence on Process Innovation (Y2)

2) The second hypothesis: H0 is rejected and Ha is accepted, it means Commitment(X5) partial influence on Process Innovation (Y2) total knowledge level(X2) and Commitment(X5) for Process Innovation (Y2) as follows:

Table 10.
Calculation results of Direct and Indirect influence of Knowledge (X2) and Commitment (X5) to Product Innovation (Y1)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Influence formula</th>
<th>Direct</th>
<th>Indirect</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (X2)</td>
<td>($p_x^2x_5$)</td>
<td>0.265</td>
<td>0.132</td>
<td>through $X_5$</td>
<td>0.397</td>
</tr>
<tr>
<td>Commitment (X5)</td>
<td>($p_x^2x_5$)</td>
<td>0.107</td>
<td>0.132</td>
<td>through $X_2$</td>
<td>0.239</td>
</tr>
<tr>
<td>Simultaneous influence X2X5 to Y2</td>
<td>$R^2_{X2x5}$</td>
<td></td>
<td></td>
<td></td>
<td>0.636</td>
</tr>
<tr>
<td>Influence of outside variable to Y2</td>
<td>$p_{y_e^2}$</td>
<td></td>
<td></td>
<td></td>
<td>0.364</td>
</tr>
</tbody>
</table>

Sources: Data Processing Results with SPSS 19:00

Hypothesis Testing in Simultaneous

The first step to test the simultaneous hypothesis is to calculate the linear regression between the variables simultaneously. Processing the output of SPSS 17:00 is as follows:

Table 11.
Linear Regression Results Product Innovation and Process Innovation on Managerial Performance in Simultaneous

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.917(a)</td>
<td>.841</td>
<td>.835</td>
<td>1.93054</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Y2, Y1
Sources: Processing Results of Primary Data, 2013

ANOVA (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1122.250</td>
<td>2</td>
<td>561.125</td>
<td>150.558</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>212.437</td>
<td>57</td>
<td>3.727</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1334.687</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Y2, Y1
b Dependent Variable: Z
Sources: Processing Results of Primary Data, 2013

Based on Table 11 above, section ANOVAb seen that the p-value sig. 0.000<0.05, and F count 150 558>F 3.159 (F_{table} seen from Table F with denominator df = 60-2-1 = 57 and df numerator = 2 at significance level of 5%).
While the correlation R = 0.917, which means there is a strong correlation between Product Innovation and Process Innovation on Managerial Performance. A decision of simultaneous hypothesis test is H0 is rejected and Ha is accepted, it means Product Innovation and Process Innovation simultaneous influence on Managerial Performance. Simultaneously influence magnitude is 84.10% (R² = 0.841). While the remaining 15.90% influenced by other factors that were not studied.

The next step is to test the partial path coefficients between Product Innovation (Y1) and the Innovation Process (Y2) to Managerial Performance (Z). Linir output regression calculation results are as follows:

Table 12.
Linear Regression Calculation Result Product Innovation (Y1) and the Innovation Process (Y2) to Managerial Performance (Z) in Partial Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.172</td>
<td>1.342</td>
<td>.128</td>
</tr>
<tr>
<td></td>
<td>Y1</td>
<td>.311</td>
<td>.078</td>
<td>.394</td>
</tr>
<tr>
<td></td>
<td>Y2</td>
<td>.553</td>
<td>.097</td>
<td>.560</td>
</tr>
</tbody>
</table>

a Dependent Variable: Z
Sources: Processing Results of Primary Data, 2013

To test the hypothesis partially, for Product Innovation variables (Y1) test results of p-value 0.000>0.05 or taccount 3,996>2,002 ttable. Then the Innovation Process Variable (Y2)p-value 0.000>0.05 or taccount5,674>2,002 ttable. Decision of the partial hypothesis test:
1) unity Hypothesis: H0 is rejected and Ha is accepted, it means Product Innovation (Y1) partial influence on Managerial Performance (Z)
2) The second hypothesis: H0 is rejected and Ha is accepted, it means Innovation Process (Y2) partial influence on Managerial Performance (Z).

The amount of influence Product Innovation (Y1) and the Innovation Process (Y2) on Managerial Performance (Z) is as follows:

Table 13.
Calculation results of Direct and Indirect Influences of Product Innovation (Y1) and the Innovation Process (Y2) on Managerial Performance (Z)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Influence</th>
<th>Formula</th>
<th>Directly</th>
<th>Indirectly</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inovasi Produk (Y1)</td>
<td></td>
<td>(pzy₁)²</td>
<td>0.155</td>
<td></td>
<td>0.341</td>
<td></td>
</tr>
<tr>
<td>Inovasi Proses (Y2)</td>
<td></td>
<td>(pzy₂)²</td>
<td>0.314</td>
<td></td>
<td>0.500</td>
<td></td>
</tr>
<tr>
<td>Simultaneous influence Y₁Y₂ terhadap Z</td>
<td>R²,pzy₁pzy₂</td>
<td>0.159</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influence of outside variable to Z</td>
<td>pzy₂</td>
<td>0.841</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Data Processing Results with SPSS 19:00
Based on the analysis of the three sub-path line above which arguing that the X1, X3, and X4 does not influence the Y1 and Y2, then the path diagram form the overall model changed as shown below.

Figure 3. Overall Line Diagram (Revised)

The first step is to test simultaneously calculate the linear regression between the variables simultaneously. Processing the output of SPSS 19.00 is as follows:

Table 14.
Linear Regression Results Knowledge and Managerial Commitment to Performance through Innovation in Product and Process Innovation Simultaneous

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.922(a)</td>
<td>.850</td>
<td>.839</td>
<td>1.90658</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Y2, X5, X2, Y1

Sources: Processing Results of Primary Data, 2013

ANOVA (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares of</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1134.759</td>
<td>4</td>
<td>283.690</td>
<td>78.043</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>199.928</td>
<td>55</td>
<td>3.635</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1334.687</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Y2, X5, X2, Y1

b Dependent Variable: Z

Sources: Processing Results of Primary Data, 2013
Based on Table 14 above, section ANOVA b seen that the p-value sig. 0.000<0.05, and F value 78 043>F 2.540 (F_{table} seen from Table F with denominator df = 60-4-1 = 55 and df numerator = 4 at significance level of 5%). Decision of simultaneous test adalah H0 rejected and Ha is accepted, it means Knowledge, Commitment, Product Innovation and Process Innovation simultaneous influence on Managerial Performance. Simultaneously influence magnitude is 85.00%(R2 = 0.850). While the remaining 15.00% influenced by other factors that were not studied.

The next step is to test the partial path coefficients between Knowledge (X2), commitment (X5), Product Innovation (Y1) and the Innovation Process (Y2) to Managerial Performance (Z). Linir output regression calculation results are as follows:

Table 15. Linear Regression Calculation Result Knowledge (X2), Commitment(X5), Product Innovation (Y1) and the Innovation Process (Y2) to Managerial Performance (Z) in Partial Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.917</td>
<td>1.450</td>
<td>-.632</td>
<td>.530</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.028</td>
<td>.049</td>
<td>.054</td>
<td>.567</td>
</tr>
<tr>
<td></td>
<td>X5</td>
<td>.217</td>
<td>.154</td>
<td>.146</td>
<td>1.405</td>
</tr>
<tr>
<td></td>
<td>Y1</td>
<td>.205</td>
<td>.096</td>
<td>.261</td>
<td>2.135</td>
</tr>
<tr>
<td></td>
<td>Y2</td>
<td>.518</td>
<td>.103</td>
<td>.525</td>
<td>5.024</td>
</tr>
</tbody>
</table>

a Dependent Variable: Z
Sources : Processing Results of Primary Data, 2013

For partial test, the variable Knowledge (X2) test results of p-value 0573>0:05 or t_{account} 0.576<2.003 t_{table}. Commitment (X5) test results of 0166 p-value >0.05 or t_{account} 1.405<2.003 t_{table}, Product Innovation (Y1) test results of p-value 0.037<0.05 or t_{account} 2.135>2.003 t_{table}. Then the Innovation Process Variable (Y2)p-value 0.000>0.05 or t_{account} 5,024>2,003 t_{table}. Decision of partial test above:

1) Unity Hypothesis: H0 is accepted and Ha rejected, meaning Knowledge (X1) is not partial influence on Managerial Performance (Z)
2) The second hypothesis: H0 is accepted and Ha rejected, meaning Commitment(X5) no partial influence on Managerial Performance (Z).
3) unity Hypothesis: H0 is rejected and Ha is accepted, it means Product Innovation (Y1) partial influence on Managerial Performance (Z)
4) The second hypothesis: H0 is rejected and Ha is accepted, it means Innovation Process (Y2) partial influence on Managerial Performance (Z).
Large indirect influence on X2 and X5 Managerial Performance (Z) is as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Influence Formula</th>
<th>Indirectly</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (X3)</td>
<td>((pyx1))</td>
<td>0.077</td>
<td>through (Y_1)</td>
<td>0.453</td>
</tr>
<tr>
<td></td>
<td>((pyx2))</td>
<td>0.270</td>
<td>through (Y_2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((pyx1)(pxx2)(pxy1)))</td>
<td>0.036</td>
<td>through X3 dan (Y_1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((pyx1)(pxx2)(pxy2)))</td>
<td>0.069</td>
<td>through X3 dan (Y_2)</td>
<td></td>
</tr>
<tr>
<td>Commitment (X4)</td>
<td>((pyx1))</td>
<td>0.158</td>
<td>through (Y_1)</td>
<td>0.436</td>
</tr>
<tr>
<td></td>
<td>((pyx2))</td>
<td>0.172</td>
<td>through (Y_2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((pyx1)(pxx2)(pxy1)))</td>
<td>0.036</td>
<td>through X4 dan (Y_1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((pyx1)(pxx2)(pxy2)))</td>
<td>0.069</td>
<td>through X4 dan (Y_2)</td>
<td></td>
</tr>
</tbody>
</table>

**Sources:** Data Processing Results with SPSS 19:00

**Discussion of Research Findings**

Hypothesis testing results showed that Zach’s Star model consisting of factors Passion, Knowledge, Network, Energy, and Commitment simultaneously influence the Product Innovation PT Len. The major contribution of the influence variable Passion, Knowledge, Network, Energy, and simultaneously Commitment to Product Innovation Len is equal to 74.90% with the positive direction in which the higher the better and Passion, Knowledge, Network, Energy, and Commitment PT Len will be more able to increase product innovation from PT Len.

However, based on the test results obtained by the study partially different results, where the Passion variable (X1), Network (X2), and Energy (X4) does not meet the requirements partially \(p\)-value <0.05, and \(t\)-\(t\) table. Consequently Hypothesis H1 filing revised to be repeated.

Thus the end result is the Knowledge of the structure of the model (X2) and Commitment(X5) influence on Product Innovation (Y1) simultaneously or partially. Where the influence of Knowledge (X2) and Commitment(X5) simultaneously for Product Innovation is at 73.30%, while the remaining 26.70% is influenced by factors beyond the Knowledge variable (X2) and Commitment(X5). The major influence of partially Knowledge (X2) for Product Innovation (Y1) is equal to 22.60% and the influence of Commitment(X5) for Product Innovation (Y1) is at 50.70%. Thus the partial influence of variable Commitment(X5) is more dominant than in the Knowledge variable (X2).

This suggests that in creating a plan of Product Innovation role in Len Commitment(Commitment) of all the managerial (manager) is required in addition to the Knowledge of every managerial, because however high managerial
knowledge possessed without the commitment of Product Innovation would be
difficult to materialize. Thus low on product innovation can be anticipated by Len
enhance the entrepreneurial spirit in terms of managerial owned the Star Zach
models especially in terms of knowledge and high commitment. Then the
knowledge of factors that must be improved by Len managerial knowledge refers
to the perception held managerial knowledge is the role of financial and human
resources in the success of the business. While the commitment factor should be
increased refers to the perception held managerial commitment is a commitment
to the involvement of management in the organization, commitment to remain in
the management's management, as well as on the self-management commitment
to the management.

Results of this study was supported by a statement from Allen and Meyer
(2003) that the effective commitment includes the employee's emotional
attachment and involvement in the organization; continuance commitment which
is a commitment by losses related to the discharge of an employee of the
organization, and normative commitment is a feeling of obligation to remain in
the organization.

Then the results of this test also supports the results of previous studies
conducted by Guillaume & Patrick (2009) arguing that if the management of the
knowledge about the product, it will facilitate product innovation. Similarly, these
results support the results of research conducted by Richey (2005: 238) found a
model that can improve the resource commitment product innovation (technology)
and innovation processes (procedures and processes). However, these results do
not support the results of previous studies conducted by Okpara (2007) describes
that employers who have a high passion, will always seek to innovate products
and processes. Likewise, the results of Setyawati, Shariff, and Saud (2011: 153)
found that the innovation of products and processes can be done properly if the
employer has a strong business network (network).

Hypothesis testing results showed that Zach’s Star model consisting of
factors Passion, Knowledge, Network, Energy, and Commitment simultaneously
influence the Innovation Process PT Len. The major contribution of the influence
variable Passion, Knowledge, Network, Energy, and simultaneously Commitment
to Innovation Process in PT Len is equal to 65.70% with the positive direction in
which the higher the better and Passion, Knowledge, Network, Energy, and
Commitment PT Len then be increasingly able to increase innovation process of
PT Len.

However, based on the test results obtained by the study partially different
results, where the Passion variable (X1), Network (X2), and Energy (X4) does not
meet the requirements partially p-value <0.05, and t>t table. Hypothesis H2
consequently revised submission to be repeated.

Thus the end result is the Knowledge of the structure of the model (X2)
and Commitment(X5) influences the Innovation Process (Y2) simultaneously or
partially. Where the influence of Knowledge (X2) and Commitment(X5)
simultaneously for Process Innovation amounted to 63.60%, while the remaining
36.40% is influenced by factors beyond the Knowledge variable (X2) and
Commitment(X5). The major influence of partially Knowledge (X2) for Process
Innovation (Y2) is equal to 39.70%, while the influence of Commitment (X5) for Process Innovation (Y2) is at 3.90%. Thus the partial influence of variable Knowledge (X2) is more dominant than the Commitment variable (X5).

This suggests that in creating a plan for Process Innovation in Knowledge Len role better knowledge of the internal environment (production, marketing, finance and human resources) and external environment (competition and government regulation) of any managerial (manager) is required in addition to the commitment (Commitment) owned by each managerial. So low on the innovation process Len can be anticipated with increasing managerial entrepreneurship held in this case Star Zach models especially in terms of knowledge and high commitment. Then the knowledge of factors that must be improved by Len managerial knowledge refers to the perception held managerial knowledge is the role of financial and human resources in the success of the business. While the commitment factor should be increased refers to the perception held managerial commitment is a commitment to the involvement of management in the organization, commitment to remain in the management's management, as well as on the self-management commitment to the management.

Results of this study support the hypothesis testing results of a previous study conducted by Guillaume & Patrick (2009) arguing that if the management of the knowledge about the product, it will facilitate product innovation. Similarly, these results support the results of research conducted by Richey (2005:238) find a model that can improve the resource commitment product innovation (technology) and innovation processes (procedures and processes). However, these results do not support the results of previous studies conducted by Okpara (2007) describes that employers who have a high passion, will always seek to innovate products and processes. Likewise, the results of Setyawati, Shariff, and Saud (2011:153) found that the innovation of products and processes can be done properly if the employer has a strong business network (network).

**Influence of Product Innovation and Process Innovation on Managerial Performance in PT Len**

Hypothesis testing results showed that the Product Innovation and Process Innovation simultaneously influence the Managerial Performance PT Len. The major contribution of the influence variable Product Innovation and Process Innovation simultaneously on Managerial Performance PT Len is equal to 84.10%, while the remaining 15.90% is influenced by factors beyond the Product Innovation and Process Innovation. This shows that the higher the Product Innovation and Process Innovation owned Managerial Len will be able to increase the performance Management of PT Len.

Then partially both Product Innovation and Process Innovation each have a positive and significant impact on Managerial Performance. The major influence on Managerial Performance Product Innovation amounted to 34.1%, while the influence of Process Innovation on Managerial Performance of 50.00%. This shows that innovation is a process or thinking about a more dominant influence in improving the managerial performance.
The end result of the structure of the model is Knowledge \(X_2\) and Commitment\(X_5\) influence on Product Innovation \(Y_1\) and the Innovation Process \(Y_2\) which has implications for the Managerial Performance \(Z\). Or in other words that Knowledge \(X_2\) and Commitment\(X_5\) influence on Managerial Performance \(Z\) through the intervening Product Innovation \(Y_1\) and the Innovation Process \(Y_2\). Where the influence of Knowledge \(X_2\) and Commitment\(X_5\) simultaneously on Managerial Performance \(Z\) through the intervening Product Innovation \(Y_1\) and the Innovation Process \(Y_2\) is equal to 88.90%, while the remaining 11:10% influenced by external factors. The major influence of partially Knowledge \(X_2\) on Managerial Performance \(Z\) through the intervening Product Innovation \(Y_1\) and the Innovation Process \(Y_2\) is equal to 45.30%, while the influence of Commitment\(X_5\) on Managerial Performance \(Z\) through the intervening Product Innovation \(Y_1\) and the Innovation process \(Y_2\) is equal to 43.60%. Thus the partial influence of variable Knowledge \(X_2\) is more dominant than the Commitment variable \(X_5\).

This suggests that the increasing role of Managerial Performance Knowledge Len high, good knowledge of the internal environment (production, marketing, finance and human resources) and external environment (competition and government regulation) of any managerial (manager) is required in addition to the commitment\(Commitment\) which is owned by each managerial high with through increased Innovation (Innovation process and Product Innovation).

Thus poor managerial performance at PT Len can be anticipated with increasing managerial entrepreneurship held in this case Star Zach models especially in terms of knowledge and high commitment through process innovation and product innovation. The process and product innovation factor that should be improved by reference to the perception of process and product innovation Len is covering innovation process on the use of cutting-edge machines on business success, innovation processes in production systems to adapt to the changing environment of business success and product innovation in product diversification in business success.

Results of this study complements the results of a previous study conducted by Suxaba & Kasim (2010:222) found that the success of knowledge management can increasing organizational performance. Similarly, the results of the study complements the results of a previous study conducted by Khan, at all (2010:294) found that the success of employee performance can be enhanced through a strong commitment to perform of work. Then the results of this study also support the results of research conducted by Richey (2005:238) find a model that can improve the resource commitment product innovation (technology) and innovation processes (procedures and processes), as well as the impact on the managerial performance successful(strategic, response operational, operational and service quality).
Conclusion

Based on the analysis of the study, the researchers conclude in this chapter the following results:

1. Zach’s Star models which include passion, knowledge, and network, energy, and commitment simultaneously significant influence on product innovation PT Len. Zach’s Star models also have a greater influence than any other factors towards product innovation PT Len. However, only partial knowledge and commitment that influence product innovation PT Len. Then from the results of the trimming process by eliminating the variable passion, network, and energy suggests that the influence is more dominant than the knowledge commitment towards product innovation PT Len.

2. Zach’s Star models which include passion, knowledge, and network, energy, and commitment simultaneously significant influence on process innovation PT Len. Zach’s Star models also have a greater influence than any other factor of the innovation process PT Len. However, only partial knowledge and commitment that influence the innovation process PT Len. Then from the results of the trimming process by eliminating the variable passion, network, and energy indicate that knowledge is more dominant than the influence of the commitment to innovation processes Len.

3. Product innovation and process innovation simultaneously significant influence on the performance of managerial PT Len. Product innovation and process innovation also has a greater influence than any other factor to the performance of managerial PT Len. Then simultaneously also involving factors knowledge and commitment to product innovation and process innovation influence on managerial performance. So in this case the product innovation and process innovation is knowledge and commitment to intervening managerial performance. Partially great influence on the performance of managerial knowledge through intervening product innovation and process innovation has a greater influence than the influence of commitment on managerial performance through the intervening product innovation and process innovation. In this case it seems clear that the passion, network, and energy has no influence on managerial performance through product innovation and process innovation. However, although there is currently significant impact through innovation, but passion, network, and high energy still must be owned by every managerial PT Len, because these factors are likely to be able to improve the image of the management as at the end of which is not directly able to increase sales, the management's competitiveness in the future.
References


