The Effect of Work Discipline on The Use of Mobile Sales Force Automation System Usage

Endang Siti Astuti, Heribertus Himawan, Kertahadi, Hamidah Nayati Utami

Abstract—Purpose: The purpose of this study is to examine and describe the effect of work discipline on the use of mSFA, the effect of work motivation on the use of mSFA, the effect of work tidiness on the use of mSFA, and the effect of using mSFA on discipline. Design / Method: This research is a quantitative study and the sampling technique is simple random sampling where the research sample has the same unlimited opportunity to be selected as a sample. The analytical method used in this research is descriptive analysis and GSCA analysis. Findings: Job discipline has a significant effect on the use of mSFA, work motivation has a significant effect on the use of mSFA, the use of mSFA has a significant effect on the use of mSFA. To complete future studies, researchers may consider using objective data from the database system from before using the mSFA system until some time after using the mSFA system. Originality: The researcher also tries to determine the relationship between work discipline and the use of mSFA and work motivation to update previous studies. By combining variables that affect income and the impact of usage on individuals, this research method differs from previous studies.

Index Terms—Automation System, Employee Job Satisfaction, Mobile Sales Personnel, Work Discipline

1 INTRODUCTION

SOMEONE develops positive or negative attitude on mobile system usage based on evaluation of usefulness and ease of use [66]. If a system is considered difficult to use, users tend to have negative attitude on the system [13]. Previous studies show that ease of use has significant and positive effect on usability [56, 60, 55, 58, 64, 52, 48, 63, 49]. However, the opposite is found by [47] in their study on the impact of using creative learning media in the form of games software for college students. It finds that there is no significant relation between ease and usability.

Individual’s attitude to new technology is strongly determined by their job characteristics [43, 44]. When an individual feels a new technology is suitable for their job, they tend to accept it. Conversely, when one feels the new technology isn’t relevant with their job, the individual tends to reject it. Empirical studies find that suitability with job has significant positive effect on perceived usage [69, 51, 68, 63]. Strong commitment from top leader, including senior organizational leaders, is very important to ensure acceptance of technology by creating environment which supports IT in organization, so management commitment has significant positive effect on the usage [73, 7, 15, 6]. However, previous studies find that top leaders’ support significantly affect perceived usage (PU) [39, 46, 63]. Customer Relationship Management (CRM) system is an information technology support for sales department in managing sales process to make it more effective, e.g. making appointments with consumers, determining travel routes, sales presentation, enhancing salespeople’s knowledge on the offered products or served consumers [35], by developing and nurturing long term relations with consumers [40].

PT Indomarco Adi Prima (PT IAP) is a business unit of PT Indofood Sukses makmur Tbk which works in distribution of consumer goods. PT IAP distributes the majority of Indofood products to some areas in Indonesia, from modern markets to traditional markets. There is limited study on the impact or result of acceptance of technology [70]. Previous studies on acceptance of technology generally start with variables affecting the acceptance and ends with usage or acceptance. Many previous studies on the usage of m-SFA were performed using samples of leaders or managers and the relation with organizational performance (Kwak et al., 2012; Rodriguez and Trainor, 2016).

2 LITERATURE REVIEW

In the context of IT usage, management support is defined as “individual perception on how far top management understands the importance of IT and how far top management is involved in IT implementation” [53]. Top management support is a key factor in acceptance technology [38, 39]. Strong commitment of top leaders, including senior organization leaders, is very important to ensure technology acceptance by creating environment which supports IT in organization [73, 7]. Empirical studies Sales Force Automation (SFA) application was introduced as a technology which can support the jobs of salespeople and sales manager in the 1980s [29]. SFA system utilizes computer hardware and software to collect, analyze and spread information automatically to increase the productivity of salespeople [50]. SFA technology system has many uses, including integrating consumer data and company data and being a part to integrate sales activities with company operations [11]. SFA is believed to produce information faster and more accurately [71], be more responsive [5, 36] and increase productivity in general through its support to determine market capability [65].

In the context of IT usage, conformity with job is defined as "individual perception on how far a technology should conform with their work" [70]. Individual attitude on new technology is affected by their job characteristics [43, 44]. When an individual feels a new technology is suitable for their job, they tend to accept it. Conversely, when one feels the new technology isn’t relevant with their job, the individual tends to reject it. Empirical studies find that suitability with job has significant positive effect on perceived usage [69, 51, 68]. Find that top leader support can affect perceived usability [39, 46].

Attitude is defined as individual’s mental readiness formed through experience to act to all related objects and situations.
In the present study, mSFA usage is attitude in using the system. If a system is considered difficult to use, users tend to have negative attitude to the system [13]. One develops positive or negative attitude on using mobile system based on evaluation on usability, easiness, security, comfort and satisfaction in usage [66]. User’s attitude to a system is the main factor determining whether they accept or reject the system [22].

3 Methodology

This is a quantitative study directed to test certain theories by studying the relations between variables. The research population was 658 salespeople of PT Indomarco Adi Prima across Indonesia who used mSFA system in their work in the field. The sampling technique was simple random sampling where research samples have the same unlimited chance to be selected as samples. The expected total sample collected by Morgan table in [20] is at least 242 data. The reliability test of this study used Alpha Cronbach using SPSS. The analysis methods required in this study were descriptive analysis and GSCA analysis using SPSS 17 for Windows.

4 Analysis Result

4.1 Linearity Test

From Table 1, it’s known that all relations between exogenous variables and endogenous variables have probability of 0.000. It meant probability < level of significance (alpha (α=5%)). Therefore, all relations between exogenous variables and endogenous variables were linear.

<table>
<thead>
<tr>
<th>Relation</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>work discipline on the use of mSFA</td>
<td>312.675</td>
<td>0.000</td>
</tr>
<tr>
<td>work motivation on the use of mSFA</td>
<td>110.560</td>
<td>0.000</td>
</tr>
<tr>
<td>work tidiness on the use of mSFA</td>
<td>287.008</td>
<td>0.000</td>
</tr>
<tr>
<td>using mSFA on discipline</td>
<td>159.043</td>
<td>0.000</td>
</tr>
</tbody>
</table>

4.2 Validity

Based on the result of analysis of measurement model, it’s found that all indicators of variables have loading factors over 0.5. Therefore, the indicators were valid or able to measure variables which matched the indicators.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Estimate</th>
<th>Cut Off</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job relevance</td>
<td>X1.1</td>
<td>0.865</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>0.897</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>0.783</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td>Management support</td>
<td>X2.1</td>
<td>0.843</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2.2</td>
<td>0.896</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2.3</td>
<td>0.782</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td>Usability</td>
<td>Y1.1</td>
<td>0.765</td>
<td>0.5</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y1.2</td>
<td>0.889</td>
<td>0.5</td>
<td>Valid</td>
</tr>
</tbody>
</table>

The discriminant reliability of Management support is 0.708, meaning the discriminant reliability is bigger than the cut off value which is 0.50. Therefore, based on discriminant reliability, all indicators which measured Management support were reliable. On the other hand, the cronbach’s alpha of Management support is 0.784, meaning the cronbach’s alpha is bigger than the cut off value which is 0.60. Therefore, based on cronbach’s alpha, all indicators which measured Management support were reliable. The discriminant reliability of Job relevance is 0.729, meaning the discriminant reliability is bigger than the cut off value which is 0.50. Therefore, based on discriminant reliability, all indicators which measured Job relevance were reliable. On the other hand, the cronbach’s alpha of Job relevance is 0.805, meaning the cronbach’s alpha is bigger than the cut off value which is 0.60. Therefore, based on cronbach’s alpha, all indicators which measured Job relevance were reliable.

4.3 Reliability Test

From Table 3, it’s found that the discriminant reliability of Job relevance is 0.722, meaning the discriminant reliability is bigger than the cut off value which is 0.50. Therefore, based on discriminant reliability, all indicators which measured Job relevance were reliable. On the other hand, the cronbach’s alpha of Job relevance is 0.805, meaning the cronbach’s alpha is bigger than the cut off value which is 0.60. Therefore, based on cronbach’s alpha, all indicators which measured Job relevance were reliable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job relevance</td>
<td>0.722</td>
<td>0.805</td>
</tr>
<tr>
<td>Management support</td>
<td>0.708</td>
<td>0.784</td>
</tr>
<tr>
<td>Usability</td>
<td>0.729</td>
<td>0.875</td>
</tr>
<tr>
<td>mSFA usage</td>
<td>0.632</td>
<td>0.847</td>
</tr>
<tr>
<td>Performance</td>
<td>0.751</td>
<td>0.890</td>
</tr>
</tbody>
</table>
bigger than the cut off value which is 0.60. Therefore, based on
cronbach’s alpha, all indicators which measured Performance were reliable.

The calculation showed that the critical ratio (CR) of Usability to mSFA usage was fulfilled. Hypothesis 3 was the effect of work tidiness on the use of mSFA. The test result in the table above shows that the critical ratio (CR) of Usability to mSFA usage is 4.31 (asterisk). It meant CR > t-table (t=2.00, alpha=5%). Therefore, Usability had significant direct effect on mSFA usage. Therefore, hypothesis 3 was fulfilled. Hypothesis 4 was the effect of using mSFA on discipline. The test result in the table above shows that the critical ratio (CR) of mSFA usage on Performance is 3.94 (asterisk). It meant CR > t-table (t=2.00, alpha=5%). Therefore, mSFA usage had significant direct effect on Performance. Therefore, hypothesis 4 was fulfilled.

### 4.4 Validity

Hypothesis 1 was the effect of work discipline on the use of mSFA. The test result in the table above shows that the critical ratio (CR) of Job relevance to Usability is 3.56 (asterisk). It meant CR > t-table (t=2.00, alpha=5%). Therefore, Job relevance had significant direct effect on Usability. Therefore, hypothesis 1 was fulfilled. Hypothesis 2 was the effect of work motivation on the use of mSFA. The test result in the table above shows that the critical ratio (CR) of Management support to Usability is 3.04 (asterisk). It meant CR > t-table (t=2.00, alpha=5%). Therefore, Management support had significant direct effect on Usability. Therefore, hypothesis 2 was fulfilled. Hypothesis 3 was the effect of work tidiness on mSFA usage. The test result in the table above shows that the critical ratio (CR) of Usability to mSFA usage is 4.31 (asterisk). It meant CR > t-table (t=2.00, alpha=5%). Therefore, Usability had significant direct effect on mSFA usage. Therefore, hypothesis 3 was fulfilled. Hypothesis 4 was the effect of using mSFA on discipline. The test result in the table above shows that the critical ratio (CR) of mSFA usage on Performance is 3.94 (asterisk). It meant CR > t-table (t=2.00, alpha=5%). Therefore, mSFA usage had significant direct effect on Performance. Therefore, hypothesis 4 was fulfilled.

### 4.5 Indirect Effect

The effect of Job relevance on mSFA usage through Usability produces T-statistics value of 2.67. It meant CR > t-table (t=2.00, alpha=5%). Therefore, it meant Job Relevance had significant indirect effect on mSFA usage. Thus, usability could mediate the effect of Job relevance on mSFA usage. Therefore, the effect of Job relevance on mSFA usage through Usability was fulfilled. The effect of Management support on m-SFA usage through Usability produces T-statistics value of 3.22. It meant CR > t-table (t=2.00, alpha=5%). Therefore, it meant Management support had significant indirect effect on m-SFA usage. Thus, usability could mediate the effect of Management support on m-SFA usage. Therefore, the effect of Management support on m-SFA usage through Usability was fulfilled. The effect of Usability on Performance through m-SFA usage produces T-statistics value of 3.10. It meant CR > t-table (t=2.00, alpha=5%). Therefore, it meant Usability had significant indirect effect on Performance. Thus, mSFA usage could mediate the effect of Usability on Performance. Therefore the effect of Usability on Performance through mSFA usage was fulfilled.

### 5 Discussion

The calculation showed that the critical ratio (CR) value of usability on mSFA usage is 4.31*. This CR value is bigger than t-table (t=2, alpha=5%). It meant Usability had significant direct effect on mSFA usage. The analysis of the correlation of Usability on mSFA usage produces correlation coefficient of 0.627 with significant value of 0.000. It meant there was significant relation with high correlation between the variables. The research result was consistent or in support of MOPTAM model [67]. Usability is perception of how far an individual believes that using mSFA will improve the quality of their work [22]. Usability is still considered an important variable to measure satisfaction of information technology usage [22, 69]. Other researchers who also directly connects Usability with Use are [54, 42, 72] and their research results were that Usability has significant effect on use. The coefficient of the indirect effect of Job relevance on mSFA usage through Usability is 0.112. It shows that Job relevance had positive and significant effect on mSFA usage through Usability. When mSFA technology was considered suitable for the salespeople’s needs in their job and able to help the salespeople in improving the quality of their work, the usage of the technology would increase the research result supported the study of [59] which states that generally mSFA usage can improve the performance of sales people, as well as the study of [61] which state that mobile technology which is a part of sales force automation (SFA) can give added value for the activities of sales people by enhancing communication and providing efficiency when accessing information on.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relation Between Variables</th>
<th>Estimate</th>
<th>SE</th>
<th>CR</th>
<th>Des.</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>work discipline on the use of mSFA</td>
<td>0.415</td>
<td>0.129</td>
<td>3.56*</td>
<td>Significant</td>
</tr>
<tr>
<td>H2</td>
<td>work motivation on the use of mSFA</td>
<td>0.433</td>
<td>0.178</td>
<td>3.04*</td>
<td>Significant</td>
</tr>
<tr>
<td>H3</td>
<td>work tidiness on the use of mSFA</td>
<td>0.269</td>
<td>0.097</td>
<td>4.31*</td>
<td>Significant</td>
</tr>
<tr>
<td>H4</td>
<td>using mSFA on discipline</td>
<td>0.479</td>
<td>0.107</td>
<td>3.94*</td>
<td>Significant</td>
</tr>
</tbody>
</table>

### TABLE 4

**RESULT OF DIRECT EFFECT HYPOTHESIS ANALYSIS**

<table>
<thead>
<tr>
<th>Exogenous</th>
<th>Medium</th>
<th>Endogenous</th>
<th>Indirect</th>
<th>SE</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Y1</td>
<td>Y2</td>
<td>0.112</td>
<td>0.067</td>
<td>2.67*</td>
</tr>
<tr>
<td>X2</td>
<td>Y1</td>
<td>Y2</td>
<td>0.116</td>
<td>0.081</td>
<td>3.22*</td>
</tr>
<tr>
<td>Y1</td>
<td>Y2</td>
<td>Y3</td>
<td>0.129</td>
<td>0.160</td>
<td>3.10*</td>
</tr>
</tbody>
</table>

### TABLE 5

**INDIRECT EFFECT**
customers. The employees felt that the technology was very important and effective for the company when company leaders participated in giving support. mSFA was a subsystem of Customer Relationship Management (CRM). The coefficient of indirect effect in table also shows that the coefficient of indirect effect of usability on performance through mSFA usage is 0.129, showing that usability had positive and significant effect on Performance through mSFA usage. Therefore, Performance would increase if mSFA usage also increased, because perceived Usability would also be. The performance of salespeople would be higher if they continuously used mSFA technology in their daily tasks.

6 Conclusion
Work discipline has a significant effect on mSFA, work motivation has a significant effect on mSFA, work neatness has a significant effect on mSFA, the use of mSFA has a significant effect on discipline. Hopes for future research to get a more diverse picture about the background of the user's company. In this study, performance appraisal is based on subjective assessments of salespeople as respondents. To complete future studies, researchers may consider using objective data from a database system from before using the mSFA system until some time after using the mSFA system. If using a new system or technology is a must, use of freedom and perception of use can be used.

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References


