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Auto versus Manual: When Automation Can Undermine Expected Enjoyment and Consumer Attitude toward Product

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소비자의 기대 향유와 태도에 미치는 영향

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지도교수 이 경 미

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위 원 장	주 우 진	(인)
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위 원	이 경 미	(인)

Abstract

Auto versus Manual: When Automation Can Undermine Expected Enjoyment and Consumer Attitude toward Product

Hojoon Jang
College of Business Administration
The Graduate School
Seoul National University

Today's growing power of automation is universal. Automation is not only implemented in manufacturing, industrial robots, and automobiles, but also in consumer's creation activities. While automation is an increasingly prevalent phenomenon, yet little empirical work has explored how such technology impacts consumers' attitude changes. To this end, the present work examines effect of motivations on consumer attitude toward automation.

The present research identifies that expected enjoyment can be an influential factor in forming attitude toward automated products. Thus, this research demonstrates that while automated products may increase one's task performance, it may have detrimental effects on consumers' expected enjoyment, and in turn, on attitudes toward products when the consumer is driven by intrinsic motivation. Also, the present work furthers understanding of how internal attribution of consumption creation impacts consumers' attitude toward automation.

Accordingly, the present research identifies unintended negative consequences of automation caused by different motivations. Specifically, it is

hypothesized that while automation can increase expected enjoyment of consumers who are extrinsically motivated, automation can simultaneously decrease that of consumers who are intrinsically motivated. In other words, while extrinsic motivation may enhance consumers' attitudes toward automated products, intrinsic motivations may undermine it.

Two experiments (N = 208 and 249) yielded results consistent with the proposed hypothesis. In the experiments, the author manipulated motivations of participants in each condition by framing a task as "an opportunity to have fun" (intrinsic motivation) and "an obligation to work" (extrinsic motivation). To assess attitude toward automated products, participants were given with a scenario about a creation task where they could borrow automated equipment to make bread (study 1) and paint a wall (study 2). These results indicated that individuals who want to achieve intrinsic goals by experiencing the creation task are likely to have less favorable attitudes toward the automation than those who focus on extrinsic benefits.

This work shed lights on unintended negative consequences of automation which may be caused by intrinsic motivation, but also highlights why and how automation may provide a better work environment for employees.

Keywords: automation, creation, motivation, attitude, expected enjoyment

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I. INTRODUCTION

Today's growing power of automation among individuals' daily life is universal. Automation is not only implemented in industry's manufacturing such as industrial robots, and automobiles, but also in consumer's creation activities. For example, automated sewers and cutters assemble dresses, individuals can produce paintwork with automated painting machines (Fraunhofer-Gesellschaft 2017), and automatic DIY (do-it-yourself) bread makers can be easily found at online stores such as Amazon and eBay. While automation is an increasingly prevalent phenomenon, yet little empirical work has explored how such technology impacts consumers' attitude changes. To this end, the present work examines effect of motivations on consumer attitude toward technology.

Automation typically refers to the performance of tasks without human involvement, using technology (Groover 2012). In other words, automation is a technology designed to help people save time and effort, which in turn utilizes resources effectively and achieves desired outcomes. The prevalence of automation in consumption creation domain indicates that machines can now conduct tasks that only humans could do before (e.g., baking and painting), and individuals have become more dependent on the use of automated technologies. However, are the automated products reducing consumers' expected enjoyments or attitudes? If so, when will consumers want or not want to use automation?

According to consumer labor theory, individuals tend to have a more positive attitude toward products that involve human labor in creation process than products without human labor (Fuchs, Schreier, and Van Osselaer 2015; Norton, Mochon, Ariely 2012). That is, when individuals participate in creation activity

where they put their own effort (e.g., Lego products, origami, and DIY products), perceived love and product attractiveness toward the product may rise. Then, while automation is designed to minimize human effort, what is its impact on individuals' attitude toward the product in creation domain?

The present research identifies unintended negative consequences of automation caused by intrinsic and extrinsic motivations. Specifically, the author proposes that while automation can increase expected enjoyment of consumers who are extrinsically motivated, automation can simultaneously decrease that of consumers who are intrinsically motivated. In other words, while extrinsic motivation may enhance consumers' attitudes toward automated products, intrinsic motivations may undermine it.

The findings make several main contributions. First, automation is an increasingly prevalent phenomenon, yet little empirical work has explored how such technology impacts consumers' attitude changes. This research demonstrates that while automated products may increase one's task performance, it may have detrimental effects on consumers' expected enjoyment, and in turn, on attitudes toward products when the consumer is driven by intrinsic motivation. This provides important implications for use of automation.

Second, the present work furthers understanding of how internal attribution of consumption outcomes impacts consumers' attitude toward automation. The majority of literature on motivations and technology predominantly categorizes usefulness as the more influential factor in determining task importance over enjoyment (Davis, Bagozzi, and Warshaw 1992; Zhou and Feng 2017). However, the present research identifies that expected enjoyment can be an influential factor in forming attitude toward automated products. Ceteris

paribus, study 2 demonstrated that despite framing a task as an obligation to work, extrinsically motivated individuals had greater enjoyment expectations toward automated products, which resulted in greater attitude than that of intrinsically motivated individuals.

Third, this research extends prior research investigating individual reaction to automation in the creation domain. Prior research showed that consumers overvalue products they partially created because they perceive love (Fuchs, Schreier, and Van Osselaer 2015; Norton, Mochon, Ariely 2012). Aligning with previous work, this paper investigates how consumers' evaluation on automation differ depending on type of motivation. Also, Leung, Paolacci, and Puntoni (2018) suggest that individuals who identify themselves with a particular social category tend to resist automated products when their identity-relevant attribution is hindered. The present work shows that consumers may have unfavorable attitudes toward automation due to intrinsic consumption motivations.

II. THEORETICAL BACKGROUND

2.1. Intrinsic and Extrinsic Motivation on Attitude

In the present research, the author proposes that consumer attitudes toward the automated products can differ depending on individual's orientation of motivation: intrinsic motivation and extrinsic motivation. Ample researches in social psychology have profoundly articulated the two types of motivations. While a behavior is intrinsically motivated when an activity is performed for value of its own sake (Ryan and Deci 2000), it is extrinsically motivated when an activity is performed for value to achieve separable outcome (Calder and Staw 1975; Davis,

Bagozzi, and Warshaw 1992; Ryan and Deci 2000). In other words, individuals with intrinsic motivation tend to concentrate on the components that people intend to experience and achieve through consumption for no apparent reinforcement (Elliot and Harackiewicz 1996). In contrast, those with extrinsic motivation tend to consider about value in achieving outcomes that distinct from activity itself (e.g., work performance; Kruglanski et al. 1975; Yoon, Duff, and Ryu 2013). In respect to this classification, the current research attempts to shed some light on the effects of intrinsic and extrinsic motivations on consumer attitude change toward automation. Then, what type of motivation would lead to more favorable or less favorable attitudes toward the automation?

Earlier work suggests that the value to which an individual engages in products or activities differ depending on the type of motivation, which in turn influence various attitude, behavioral intention, satisfaction, and perception measures (Davis, Bagozzi, and Warshaw 1992). That is, consumers attribute different values and goals to use a product based on their motivation. Supporting the notion, previous research identified that when intrinsic motivation become salient, gaining life experience from an activity becomes the primary intention (Gilovich, Kumar, and Jampol 2015; Van Boven and Gilovich 2003). In contrast, when extrinsic motivation become salient, achieving material goals that is independent from an activity becomes the primary intention (Belk 1985). In other words, individuals who rely on intrinsic motives tend to have intrinsic goals associated with personal desires for actualization, also referred as self-fulfillment (Deci and Ryan 1985; Kasser and Ryan 1996). For example, consumption experience is intrinsically rewarding when it is driven by intrinsic motivations such

as hedonic pleasure and is extrinsically rewarding when it is driven by extrinsic motivations such as utilitarian goods (Holbrook and Hirschman 1982).

Thus, it is expected that when consumption is driven by intrinsic motivations, people continue to engage the task even they face difficulties or repetitive tasks in order to achieve the intrinsic goals. Previous literature suggests that individuals tend to focus on benefits that are intrinsically rewarding when motivations are intrinsic, and such desire leads them to engage with the task with greater self-control than when it is extrinsic (Havlena and Holbrook 1986; Hoffman and Novak 1996; Laran and Janiszewski 2011). Also, intrinsic motivations encourage goal-consistent behavior such that individuals behave repetitively and persistently to achieve goals (Bagozzi and Warshaw 1990, Van Osselaer and Janiszewski 2012). For example, Loewenstein (1999) suggests that individuals climb mountains not only for the view of the summit, but also for the feeling of reaching the top through endurance. On the other hand, individuals with extrinsic motivation can reduce self-regulation (Laran and Janiszewski 2011) and tend to link the situations as a means of achieving specific goals which provide satisfaction independent of the actual activity. In other words, extrinsically motivated individuals may tend to utilize a helpful means to proceed with the situation.

Collectively, following the previous propositions, the present research examines whether individuals with extrinsic motivations may want to use available resources to achieve their goals. In contrast, those with intrinsic motivations may avoid using actions and tools that may reduce their desire to experience. It is evident that individuals with intrinsic motivations pursue activities to satisfy intrinsic well-being (e.g., experiential benefits), and consumption satisfaction can

be attenuated when their need for autonomy or competence is hindered (Deci and Ryan 2012). In contrast, people with extrinsic motivations may desire to facilitate the process of reaching the outcome. Hence, they tend to rely on available external resources (Deci and Ryan 2012; Van Boven and Gilovich 2003). Supporting this notion, goal-based theory explains that the benefits consumers derive from making choices depend on the accessibility of their goals (Van Osselaer et al. 2005). Product elements that enable consumers to overcome the limited processing capacity may provide utility (Simon 1955; Tversky and Kahneman 1981). For example, consumers who wish to reduce shopping time (i.e., consumption driven by extrinsic motivations), compared to those who want to enjoy the time at the mall (i.e., consumption driven by intrinsic motivations), would not want to wait in line (Van Osselaer et al. 2005) because they focus on minimizing negative emotions (Bettman, Luce, and Payne 1998). In this case, an automated self-checkout may be of help. This supports the theorization of this research that individuals with extrinsic motivations tend to adopt automation more favorably than those with intrinsic motivations.

Therefore, the present research expects that individuals with intrinsic motivations tend to avoid using automated products, because they desire to achieve goals through experience. In contrast, to those with extrinsic motivations, the automated products may be used as a tool to obtain desired results that is independent from an engaged activity. Hence, the author proposes the following hypothesis:

H1: Extrinsically motivated individuals are more likely to have favorable attitudes toward autonomous products than intrinsically motivated individuals.

2.2. Enjoyment Expectations for Automation based on Motivation

As noted earlier, the current research proposes that consumer attitudes toward automation depend on the associations between the orientation of motivation and expected benefits driven by the motivation. Then, what are the expected benefits consumers look for when they attempt to use automated products? This paper focuses on consumers' expectations toward automated products in regard to intrinsic and extrinsic motivation.

Based on the difference between intrinsic and extrinsic motivation, previous research has identified that this distinction can have different impact on technology use. For example, according to the dichotomy, Davis, Bagozzi, and Warshaw (1992) demonstrated that individuals with extrinsic motivations engage in an activity for instrumental purpose. Thus, perceived usefulness has been considered as a key determinant of extrinsic motivation toward the computer usage intention (Davis and Wiedenbeck 2001). In contrast, previous literature suggests that individuals with intrinsic motivations engage in an activity to pursue pleasurable life experiences (Etkin 2016). Thus, enjoyment has been identified as a significant factor on users' intention to use technology including information technology (Rad, Nilashi, and Dahlan 2018), online information search (Mathwick and Rigdon 2004), and online games (Yoon, Duff, and Ryu 2013). Accordingly,

previous literature suggests that both perceived usefulness and enjoyment are major factors of intrinsic and extrinsic motivation that influence consumer attitudes and consequently decision-making behaviors.

However, this research identifies expected enjoyment as a key determinant of attitudes toward the automated products based on two main perspectives about intrinsic and extrinsic motivation. First, according to affective forecasting research, expected emotions play an important role in actual judgment and decision-making situations than perceptions especially regarding one's motivation (Falk, Dunn, and Norenzayan 2010; Loewenstein and Lerner 2003). That is, individuals' anticipated reactions toward technology may become an influential factor toward attitude changes. Further, Baumeister et al. (2007) suggest that individuals tend to decide what to do based on a particular expected emotion. In other words, when expected emotions are made, they form subsequent attitudes and attempt to act based on the outcome of the expectation emotion. Hence, considering how expected emotions shape behavior reflects that it may provide useful guidelines to explain consumers' judgment and behavioral decision-making research.

Second, since automation is typically considered to assist consumers to achieve consumption outcomes (e.g., enhancing cost-benefit and often guaranteeing similar outcomes; Leung, Paolacci, and Puntoni 2018), it is likely that consumers may perceive the automated products are fundamentally useful. Supporting to this notion, consumers tend to experience inconvenience when they are involved in unfamiliar tasks (Dahl, Manchanda and Argo 2001), and such psychological discomfort can be alleviated by using available technological resources (Giebelhausen et al. 2014). For instance, Lawrence (1991) illustrated the tendency of utilizing automated process, such as artificial intelligence, in corporate

organizations, when the task is new, extraordinary, and complex. That is, consumers may interpret that automated products as useful to obtain desired benefits. Moreover, automation may generate positive emotions as utility (e.g., enjoyment; Kahneman et al. 1999) when it enables consumers to overcome difficulties (Simon 1955; Tversky and Kahneman 1981). In this respect, this work proposes that, rather than usefulness, consumers' enjoyment expectations may be more of a key determinant in consumers' attitudes toward automated products.

In sum, the present research expects that intrinsically motivated consumers versus extrinsically motivated consumers may expect lower expected enjoyment toward the automated products. Consequently, this expected enjoyment may lead consumers to have less favorable attitudes toward automation. Therefore, this paper proposes the following hypothesis:

H2: The effect of motivation on attitudes toward autonomous products is mediated by consumers' enjoyment expectations.

III. OVERVIEW OF THE RESEARCH

The present research investigated across two studies whether intrinsically motivated individuals tend to have less favorable attitudes toward automation compare to extrinsically motivated individuals. Study 1 tested the key notion of the effect of intrinsic and extrinsic motivation on consumer attitudes toward automated products using a behavioral experiment. Study 2 examined the role of expected enjoyment toward automated products in linking the effect of motivation on attitude toward automation.

IV. STUDY 1

In study 1, the present research examines whether intrinsic motivation versus extrinsic motivation would negatively affect consumers' attitudes about automated products.

4.1. Method and Procedure

208 participants (103 women, M_{age} = 34.83) were recruited from Amazon Mechanical Turk (M-Turk) in exchange for nominal monetary compensation. This study employed a single factor (motivation: intrinsic vs. extrinsic) between-subjects design. The participants were randomly assigned to one of the two conditions.

Participants in each motivation condition were provided a baking task scenario (adapted from Leung, Paolacci, and Puntoni 2018) where they could borrow automated equipment to make bread. Adapting manipulation from Laran and Janiszewski (2011), in the intrinsic motivation condition, the baking task was framed as "an opportunity to have fun". In the extrinsic motivation condition, it was framed as "an obligation to work" ("your manager asked you"). Then, all the participants read the scenario including description and process of the automated bread-baking machine ("Daisy Bread-Maker bakes the bread for you").

In terms of measures, participants were asked to provide their attitudes, intention to use, willingness to borrow, willingness to recommend to friends, and willingness to buy, all on a 7-point Likert scale using the same anchors (1 = very little, 7 = very much). These measures were combined into single index (α = .91).

Next, as for manipulation check, participants were asked to indicate how much they perceived the task to be (1) an obligation to work and (2) an opportunity to have fun on a 7-point Likert scale (1 = not at all, 7 = very much). Finally, the participants indicated their demographic information and were debriefed.

4.2. Results

Manipulation Check. One-way analysis of variance (ANOVA) revealed that participants in the intrinsic motivation condition were more likely to perceive the baking task as an opportunity to have fun than those in the extrinsic motivation condition ($M_{\text{intrinsic}}$ = 5.58, SD = 1.22 vs. $M_{\text{extrinsic}}$ = 4.73, SD = 1.64, $F(1, 206)$ = 17.98, p = .000). Also, participants in the extrinsic motivation condition were more likely to perceive the baking task as an obligation to work than those in the intrinsic condition ($M_{\text{intrinsic}}$ = 2.97, SD = 1.67 vs. $M_{\text{extrinsic}}$ = 5.35, SD = 1.33, $F(1, 206) = 129.56$, p = .000).

Consumer Attitude toward Automation. An one-factor (motivation: intrinsic vs. extrinsic) ANOVA on the consumer attitude for automated products revealed that there was a significant difference between the two motivation conditions ($F(1, 206) = 4.87$, p = .037, effect size = .02; Figure 1). The participants in the intrinsic motivation condition showed lower consumer attitude toward automated baking machine ($M_{\text{intrinsic}}$ = 4.32, SD = 1.17) than those in the extrinsic motivation condition ($M_{\text{extrinsic}}$ = 4.63, SD = .92). This supports hypothesis that intrinsically motivated individuals tend to have lower attitude toward the automation than extrinsically motivated individuals.

[Insert Figure 1 Here]

4.3. Discussion

In study 1, the author found that individuals with intrinsic motivation have a lower attitude toward the automated product than those with extrinsically motivation. Further, in study 2, while replicating the results, the author examined the mechanism underlying the effect of expected enjoyment in regard to intrinsic and extrinsic motivation on attitude toward automation.

V. STUDY 2

This study attempts to examine the underlying mechanism that can explain the effect of intrinsic and extrinsic motivation on the attitude toward automated products. The author predicts that expected enjoyments about the automated products can mediate the effect of motivation on consumer' attitudes about automation.

5.1. Method and Procedure

249 participants (105 women, Mage = 34.24) were recruited using M-Turk in exchange for nominal monetary compensation. The study employed a single factor (motivation: intrinsic vs. extrinsic) between-subjects design. The participants were randomly assigned to one of the two conditions.

The procedure of this study is same as in study 1 except participants in each motivation condition were provided a painting task scenario. That is, in the intrinsic motivation condition, the painting task was framed as "an opportunity to

have fun". In the extrinsic motivation condition, it was framed as "an obligation to work." Then, similar to study 1, participants read the scenario which includes description and process of automated painting machine ("Willey Auto Paint-Brush paints the wall for you").

In terms of measures, the present study assessed overall attitude toward the automated painting equipment using a single index made in study 1 (α = .92). Also, the current study measured the proposed mediator, expected enjoyment toward the automated product, by asking participants how they expect about the automated painting equipment with four items (not playful/playful, not enjoyable/enjoyable, not exciting/exciting, not interesting/interesting; adapted from Voss, Spangenberg, and Grohmann 2003) by asking how much they expect about the painting equipment on a 10-point semantic differential scale. These measures for expected enjoyments were combined into single index (α = .80).

5.2. Results

Manipulation Check. ANOVA was performed and revealed that participants in the intrinsic motivation condition were more likely to perceive the painting task as an opportunity to have fun than those in the extrinsic motivation condition ($M_{\text{intrinsic}}$ = 5.37, SD = 1.57 vs. $M_{\text{extrinsic}}$ = 4.75, SD = 1.84, $F(1, 247)$ = 8.39, p = .004). In addition, participants in the extrinsic motivation condition were more likely to perceive the painting task as an obligation to work than those in the intrinsic condition ($M_{\text{intrinsic}}$ = 4.59, SD = 1.69 vs. $M_{\text{extrinsic}}$ = 5.56, SD = 1.42, $F(1, 247) = 24.16$, p = .000).

Consumer Attitude toward Automation. An one-factor (motivation: intrinsic vs. extrinsic) ANOVA on the consumer attitude toward automated products found that there was a significant difference between the intrinsic motivation condition and the extrinsic motivation condition ($F(1, 247) = 9.68$, $p = .002$, effect size = .04; Figure 2). The participants in the intrinsic motivation condition showed lower consumer attitude toward automated painting machine ($M_{intrinsic} = 5.14$, $SD = 1.51$) than those in the extrinsic motivation condition ($M_{extrinsic} = 5.66$, $SD = 1.09$). This supports hypothesis that intrinsically motivated individuals tend to have lower attitude toward the automation than extrinsically motivated individuals.

[Insert Figure 2 Here]

Effects of Motivation on Expected Enjoyments. A single factor (motivation: intrinsic vs. extrinsic) ANOVA on expected enjoyment toward automated products revealed that there was a significant difference between the two motivation conditions ($F(1, 247) = 7.95$, $p = .005$, effect size = .03). The participants in the intrinsic motivation condition showed lower expected enjoyment toward automated painting equipment ($M_{intrinsic} = 7.48$, $SD = 1.60$) than those in the extrinsic motivation condition ($M_{extrinsic} = 8.02$, $SD = 1.36$). These findings support notion that individuals with extrinsic motivation tend to utilize the automated products as a mean to proceed the work task.

Mediating Role of Expected Enjoyment. The present study tested the proposed mediating role of the expected enjoyment in the link between the

motivation and attitude toward automation. To test this, the author used the bootstrapping procedure (PROCESS model 4; Hayes 2017; Preacher and Hayes 2008) with 5,000 samples. The result of the mediation analysis revealed that the effect of motivation on consumer attitude toward automation was mediated by the expected enjoyment (point estimate = .28, 95% CI = [.09, .49]; Figure 3)

[Insert Figure 3 Here]

5.3. Discussion

In study 2, the author found that the intrinsically motivated individuals versus extrinsically motivated individuals tend to have lower expected enjoyment which in turn resulted in undermining attitude toward automated products. Also, the author replicated the effect of motivation on attitude toward automation, which was observed consistently in study 1 and study 2. These results provide converging evidence for the notion that when consumption is driven by intrinsic motivation, automation can be a detrimental equipment for individuals because it takes away expected enjoyment. In contrast, when consumption is driven by extrinsic motivation, it can be a beneficial tool for individuals who focus on rewards that is independent from the activity.

VI. GENERAL DISCUSSION

This research examined how orientation of motivation can affect differently on consumer attitude toward the automation, specifically focusing on

intrinsic and extrinsic motivation. Extending the findings from previous research of consumer attitudes and intentions toward various technologies, the studies reported in this paper demonstrated that when consumption is driven by intrinsic motivations, individuals tend to have less favorable attitudes toward the automation. Furthermore, the current research found a meaning mediator, expected enjoyments which can be a significant determinant of both intrinsic and extrinsic motivations toward automated products.

The present research shed light on various studies to be carried out in relation to consumer behavior toward automation. This paper has the similar vein with Leung, Paolacci, and Puntoni (2018) that individuals do not tend to use automation when required skills for specific tasks are associated with their identity. However, the present work has shown that the consumers can resist to automation when they have intrinsic motivations. In other words, individuals who want to achieve intrinsic goals by experiencing the task are likely to have less favorable attitudes toward the automation than those who focus on extrinsic benefits.

For managerial perspectives, this research provides an implication that automated products in organizations may increase workers' well-being by creating utility and enhancing enjoyments. For example, earlier work has suggested that adopting technology as an instrumental resource can reduce psychological discomfort of workers (Giebelhausen et al. 2014). Since findings from the present research demonstrated that automation can enhance expected enjoyment and attitude for those who engaged a task as an obligation to work, automated products may increase work environment in an organization.

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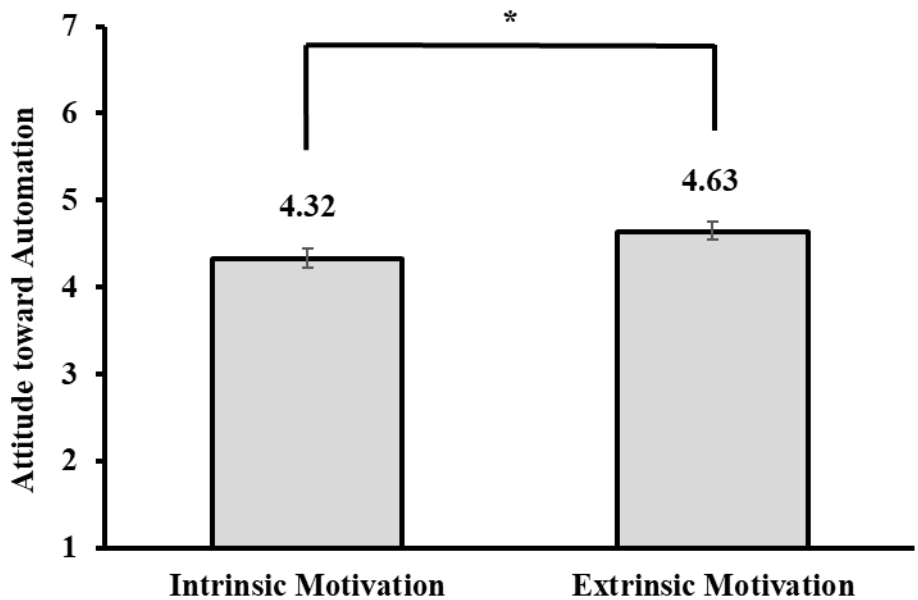
VII. APPENDIX

7.1. Appendix A: Figure 1

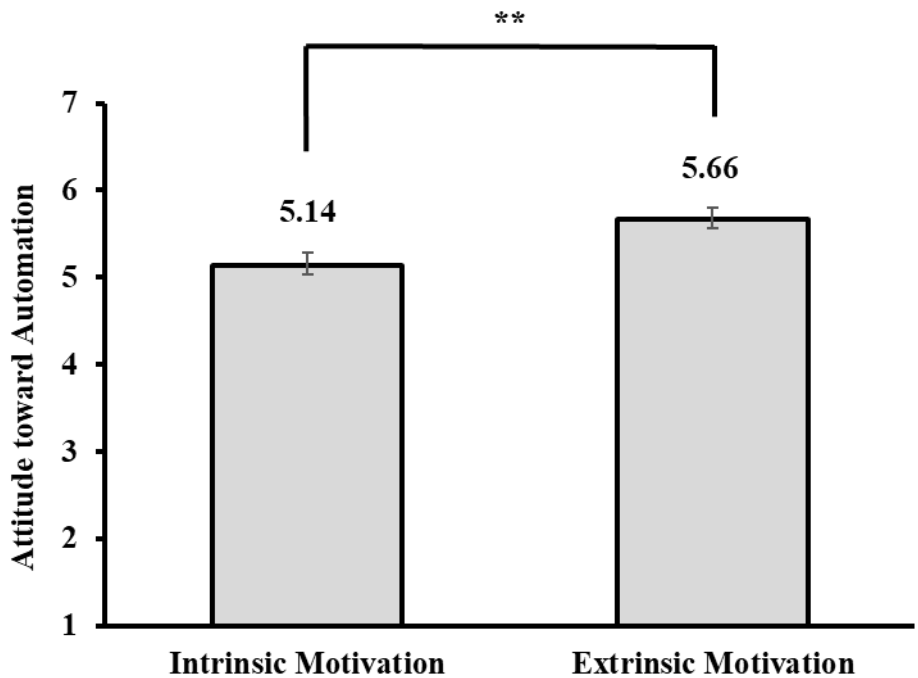
The Effect of Motivation on Attitude toward Automated Product



Note. ¯Significance levels are denoted by * at $p < .05$; error bars based on 95% confidence intervals

7.2. Appendix B: Figure 2

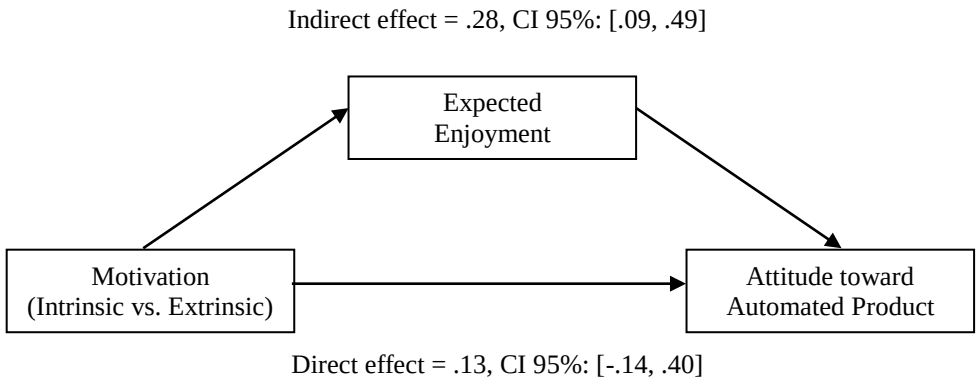
The Effect of Motivation on Attitude toward Automated Product



Note. Significance levels are denoted by * at $p < .05$, ** at $p < .01$; error bars based on 95% confidence intervals

7.3. Appendix C: Figure 3

The Effect of Motivation on Attitude toward Automated Product Mediated by Expected Enjoyment



요약 (국문 초록)

오늘 날의 기술에 기반한 자동화의 증가는 보편적인 현상이다. 이러한 자동화는 제조, 산업용 로봇 및 자동차뿐만 아니라 소비자의 창조 활동에도 사용되고 있다. 이와 같이 자동화의 보급은 확장되고 있지만 소비자들이 사용하는 자동화 제품에 대한 실증 연구가 거의 존재하지 않기 때문에 이러한 기술이 창조 활동에 있어 소비자의 태도 변화에 어떠한 영향을 미칠 수 있는 지 본 연구는 탐구한다. 이를 위해, 본 고는 소비자의 동기에 주목한다.

구체적으로 본 연구는 자동화 제품이 기본적으로 과업의 성과를 증가시킬 수 있지만, 소비자의 내재적 동기가 활성화되는 경우, 자동화 제품에 대한 소비자의 기대 향유와 제품 태도에 해로운 영향을 미칠 수 있는 것을 보여준다. 현재의 연구는 기대된 즐거움이 자동화 제품에 대한 태도를 형성하는 데 영향을 미치는 주요 요소가 될 수 있다는 것을 밝혀냈다. 또한, 본 연구는 창조 소비에 대한 내적 귀인이 자동화를 대하는 소비자의 태도에 어떻게 영향을 미치는 지에 대한 이해를 증진시킨다.

이에 따라, 본 고는 내재적 그리고 외재적 동기에 의하여 야기되는 자동화의 의도치 않은 부정적 결과를 확인한다. 구체적으로, 자동화는 외재적 동기가 활성화된 소비자의 기대 향유를 증가시킬 수 있지만, 내재적 동기의 소비자의 기대 향유를 감소시킬 수 있다고 가정한다. 즉, 외재적 동기부여가 자동화 제품에 대한 소비자의 태도를

향상시킬 수 있지만 내재적 동기는 그것을 훼손할 수 있다.

두 가지 실험 (N = 208과 249)은 제안된 가설과 일치하는 결과를 나타냈다. 저자는 해당 실험에서 동일한 창조 과업을 “즐겁게 놀 수 있는 기회” (내재적 동기)와 “일에 대한 의무” (외재적 동기)로 프레이밍하여 각 조건에서 참가자의 동기를 조작했다. 자동화 제품에 대한 태도를 평가하기 위해 참가자들에게 시나리오를 읽게 하였고 해당 시나리오는 빵을 만들거나 (연구 1) 벽을 칠하고자 하는 상황에서 (연구 2) 자동화 장비를 빌려서 과업에 사용할 수 있는 상황을 연출했다. 이러한 결과는 창조 과업을 경험함으로써 내재적인 목표를 달성하고자 하는 개인은 외재적 혜택에 초점을 둔 사람들보다 자동화에 대한 태도가 좋지 않았음을 나타냈다.

이 연구는 내재적 동기로 인해 발생할 수 있는 자동화의 의도하지 않은 부작용에 대해 규명함과 동시에 자동화가 더 나은 작업 환경을 제공할 수 있는 이유와 방법을 밝혀냈다.

주요어: 자동화, 창조, 동기, 태도, 기대 향유

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