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Mahabubur Rahim

Monash University, mahbubur.rahim@infotech.monash.edu.au

Graeme Shanks

Monash University, Graeme.Shanks@infotech.monash.edu.au

Robert Johnston

University of Melbourne, robertj@unimelb.edu.au

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UNDERSTANDING IOS ADOPTION PROCESSES IN A FIRST-TIER AUTOMOTIVE SUPPLIER COMPANY: AN APPLICATION OF THE THEORY OF IOS ADOPTION MOTIVATION

Rahim, Md. Mahbubur, Monash University, Victoria, Australia,
mahbubur.rahim@infotech.monash.edu.au

Shanks, Graeme, Monash University, Victoria, Australia,
Graeme.shanks@infotech.monash.edu.au

Johnston, Robert B., University of Melbourne, Victoria, Australia, robertj@unimelb.edu.au

Abstract

The IOS Adoption Motivation (IAM) model is a theoretical framework that relates organisational motivations for IOS adoption to IOS adoption processes. The IAM model which was tested in the Australian pharmaceutical industry however requires additional validation. We have thus applied the IAM model to understand IOS adoption processes of a supplier that operates in the Australian automotive industry. Interesting variations in the IOS adoption processes between two stages of EDI adoption were observed which are explained in terms of the model. The findings provide broad support for the IAM model, and will be useful to IT managers responsible for managing IOS.

Keywords: Inter-organisational systems, EDI, adoption, adoption process, motivations, case study.

1 INTRODUCTION

On-line business between organisations is enabled by inter-organisational systems (IOS). These systems link two or more organisations electronically and enable them to exchange key business information (Kumar and Crook, 1999). Typical IOS include EDI, internet-EDI, and customer ordering systems. These systems provide organisations with a range of benefits: enhanced efficiency (Mackay and Rosier, 1996), greater effectiveness (Lee and Lee, 2000), and improved customer services (Kaefer and Bendoly, 2000). Appropriate adoption processes need to be initiated by organisations to facilitate the achievement of these benefits (Rahim, 2004). However, it is not clearly understood how organisations choose a particular set of adoption process and why different organisations initiate adoption processes differently. Existing literature does not offer a satisfactory explanation concerning the variations in IOS adoption processes initiated by organisations.

To overcome this limitation, we have recently developed a theory, known as the IOS Adoption Motivation (IAM) model (Rahim, 2004) which relates organisational motivations for IOS adoption to IOS adoption processes by classifying organisations into four generic motivation scenarios, and predicting different adoption processes to be initiated by organisations representing different motivation scenarios. The model was tested in the Australian pharmaceutical industry where it received strong support. Additional validation of the model in other industry contexts is still required to improve its generalisability across industry segments. To address this, the IAM model was applied to explain the EDI adoption process of a first-tier supplier chosen from the Australian automotive industry. The automotive industry has different characteristics (e.g. industry structure, power distribution among supply chain members, type of product produced) from those of the pharmaceutical industry. We want to establish that the model is applicable regardless of the contexts peculiar to an industry. The selected company has experienced two distinct stages of EDI adoption: in the first stage, the company introduced a DOS-based EDI system to communicate with a large automotive manufacturing company; at a latter stage, the supplier introduced a fully integrated window-based EDI system to transact with its small customers (which are spare parts retailers operating in the aftermarket).

We have observed variations in the IOS adoption processes between the two stages which could be explained in terms of the differences in the supplier's motivations for EDI adoption for these stages. The findings thus provide support for the proposition that organisations having different motivations for adopting IOS initiate characteristically different adoption processes despite significant differences in industry contexts and that the particular circumstances within which the motivations are formed do not affect significantly the adoption processes initiated. This additional validation of the IAM model is important as it contributes to improving the understanding of IS practitioners and researchers alike about how IOS are introduced in organisations and why organisations initiate different adoption processes. An understanding of the role of organisational motivation in explaining IOS adoption processes is useful because variations in IOS adoption processes are also likely to affect the success (measured in terms of benefits) of IOS.

2 PAST APPROACHES TO IOS ADOPTION

IOS researchers have investigated IOS adoption phenomenon using two distinct approaches: factor-based research and process-oriented research. Factor-based studies are rooted in the notion that the presence or absence, or perhaps the level of certain conditions (commonly known as factors) influence the decision/intentions of organisations to adopt IOS. In general three categories of factors were identified: organisational (e.g. organisational size, management support, and IT maturity), IOS characteristics (e.g. complexity, cost and compatibility), and environmental (e.g. trust, dependency and external pressure). The works of Chwelos et al. (2001), Teo et al. (2003), Hausman et al. (2003) and Soliman et al. (2004) represent this stream of research. Factor-based studies have however produced

inconsistent findings. Many of the factors that are considered significant by some researchers are found to be insignificant by others. Furthermore, these studies do not discuss the conditions relating to initiating IOS adoption processes. A summary of the findings of this group of studies is reported in Rahim (2004).

In contrast, process-oriented IOS adoption studies generally describe the processes used in adopting an IOS solution in organisations and explain the benefits achieved as a result of IOS adoption. Proponents of this stream of research argue that the variation in IOS benefits can be explained in terms of the differences in the processes initiated by organisations for introducing IOS. The works of Damsgaard and Lyytinen (1998), Kurnia and Johnston (2000), and Kautz and Henriksen (2002) represent this stream of research. While the connection between process and benefits is often quite convincingly demonstrated, these studies do not discuss how the processes are determined in organisations and why different organisations initiate different processes.

The IOS Adoption Motivation (IAM) model (Rahim, 2004) argues that organisations with different motives for IOS adoption initiate different IOS adoption processes. The model recognises the role of traditional factors for the decision to adopt, but rejects factors as predictors of IOS adoption processes. In our previous papers (Rahim et al., 2001; Rahim et al., 2002; Rahim et al., 2004), we have successfully demonstrated the predictive power of IAM in explaining single IOS adoption initiatives in selected companies chosen from the Australian pharmaceutical industry. As the model is new, it needs to be applied in other industry segments in order to establish its generalisability.

3 THEORETICAL MODEL

The term organisational ‘motivation’ is defined as the ‘desire of an organisation that prompts it to act in a certain way for adopting an innovative system such as inter-organisational system’ (Rahim, 2004). We argue that it is organisational motivations that determine which IOS adoption processes are followed by organisations. This assertion constitutes the foundation of the IOS Motivation Model shown in Figure 1. Therefore, two organisations tend to initiate IOS in a different manner if they form different motives. The model is most useful in industries in which supply chains are characterised by a few dominant players and many docile players. In some industries (e.g. airline, banking) organisations participate in an ‘electronic exchange’ relationship with many partners. The notion of having dominant and docile players may not be observed in those industries. Consequently, the theoretical model cannot be applied to those industry settings. This characteristic of the industry constitutes the boundary of the theoretical model.

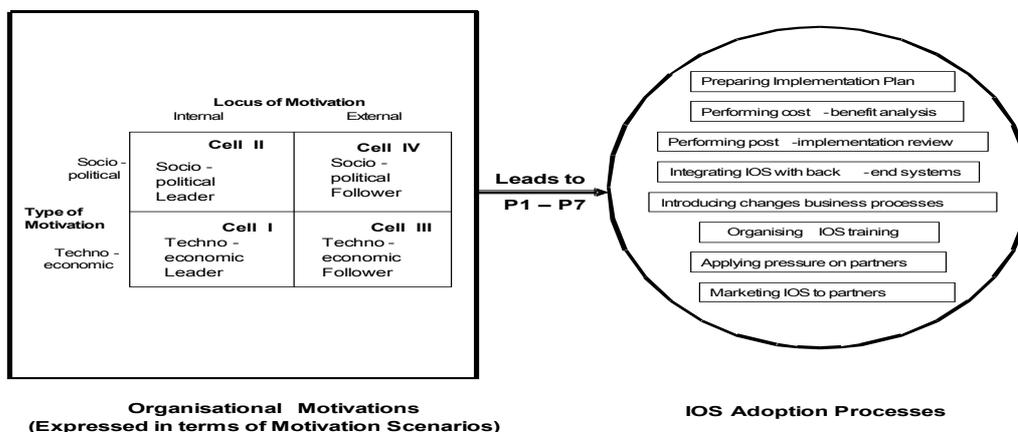


Figure 1. Research model showing relationship between organisational motivations and IOS adoption processes.

The IAM shown above incorporates the notion of ‘motivation scenarios’ (Rahim et al., 2001; Rahim, 2004). Organisational motivation may be classified along two dimensions: locus of motivation and type of motivation, leading to a total of four distinct motivation scenarios. The four types of motivation scenarios shown in the left hand side of Figure 1 recognise the existence of various types of organisational motives (e.g. coercive force, normative relations, economic gains, gaining status) and the source (e.g. internal or external) from which such motives may originate.

Cell I defines the ‘Techno-economic Leader’ scenario, characterised by an internal locus of motivation and a techno-economic type of motivation. This scenario occurs when organisations develop a direct economic motive internally and invest in an IOS project voluntarily, believing that the investment will improve organisational performance with regard to internal efficiency and competitiveness in the marketplace.

Cell II defines the ‘Socio-political Leader’ scenario, characterised by an internal locus of motivation and a socio-political type of motivation. This scenario occurs when organisations invest in IOS voluntarily to realise their own socio-political motive. In other words, these organisations initiate an IOS project for reasons other than efficiency gains, but nevertheless with a clear intention of perhaps portraying either a ‘progressive’ or ‘customer caring’ image in the industry, or with the realisation that there is no other way forward, given its trading partner’s IOS adoption strategies. However, the motivation to adopt IOS is conceived internally.

Cell III refers to the ‘Techno-economic Follower’ scenario, characterised by an external locus of motivation and a techno-economic type of motivation. This scenario occurs when an organisation is approached either by its business partners or by any other influential organisation about IOS adoption and, having evaluated the potential economic benefits of the IOS, invests in it voluntarily. Although the motivation to adopt IOS is generated from external sources (i.e. the locus of motivation is external), the decision is made based on an economic motive. Techno-economic followers generally do not build an IOS, but simply embrace a standard IOS developed either by the business partner that initiated IOS project or by a third party. However, even though techno-economic followers are not the initiators of IOS projects, they remain the proactive users of IOS.

Cell IV represents the ‘Socio-political Follower’ scenario, characterised by an external locus of motivation and a socio-political type of motivation. This scenario occurs when an organisation is approached by its trading partner or a third-party organisation to adopt an IOS, and a decision is made based on a socio-political motive. Socio-political leaders are the organisations that do not develop an IOS, but embrace an existing IOS solution developed by partners or others parties. These followers are generally the passive users of IOS and introduce IOS for reasons such as legitimacy, compliance, influence or social status.

Based on a review of past IOS adoption literature, we also identified a total of eight key activities that constitute IOS adoption process. These activities which are shown in the right hand side of Figure 1 include: preparing an IOS implementation plan, initiating a cost-benefit analysis for IOS, performing a post-implementation review of IOS, integrating IOS with back-end IT systems, introducing changes in the business practices, organising IOS training, applying pressure on business partners, and marketing IOS concepts to business partners. We argue that the sub-set of these activities that will be initiated by an organisation for introducing an IOS solution is driven by its motivation scenario for a given IOS project. This has led to the development of eight propositions which are shown in Table 1. Detailed discussion of these propositions is reported in Rahim (2004).

Propositions	IOS Motivation Scenarios				Activities
	Techno-economic leaders	Socio-political leaders	Techno-economic followers	Socio-political followers	
P1	Likely to	Likely to	Likely to	Unlikely to	Prepare an IOS implementation plan
P2	Likely to	Unlikely to	Likely to	Unlikely to	Initiate cost-benefit analysis of IOS
P3	Likely to	Unlikely to	Likely to	Unlikely to	Perform a post-implementation review of IOS
P4	Likely to	Unlikely to	Likely to	Unlikely to	Integrate IOS with back-end IT systems
P5	Likely to	Unlikely to	Unlikely to	Unlikely to	Introduce changes in the business practices
P6	Likely to	Likely to	Likely to	Likely to	Organise IOS training
P7	Unlikely to	Likely to	Likely to	Unlikely to	Apply pressure on partners
P8	Likely to	Likely to	n/a	n/a	Market IOS concept

Table 1. Propositions relating to IOS adoption process

4 AIM OF THE RESEARCH

The aim of this research is to examine the assertion that the adoption process that an organisation follows for introducing an IOS is influenced by the motivation of the organisation for adopting that IOS. This assertion is tested by examining two distinct EDI adoption initiatives undertaken by a first tier automotive supplier. In particular we have captured the supplier's motives for EDI adoption for each stage, identified the activities that the supplier initiated, and then compared whether those activities are consistent with the predictions made by IMM.

5 RESEARCH DESIGN

We have selected a scientific case study approach to study IOS adoption practice for two reasons. First, IOS adoption generally takes place in a complex environment (Premkumar et al., 1997). Hence, it is critical to capture the experiences of the relevant people and the context of their actions to understand IOS adoption. Case studies are particularly suitable for understanding phenomena within their organisational context (Yin, 1994). We sought in-depth discussions and rich explanations from multiple sources from the case site. Second, we looked for a revelatory case site that has introduced an IOS solution and is willing to share its rich experience with us. A medium-size enterprise which supplies filters to the major automotive manufacturing companies located in Australia was selected as a theoretically revelatory case site because it has undertaken two distinct EDI adoption initiatives over a period of time during which its motivation for EDI adoption had changed. The case is unique and therefore serves as an excellent test bed for examining the applicability of the IAM within the same organisation.

The case study was conducted by adhering to the rigorous principles of Yin (1994) and Sarker and Lee (2000) which are grounded in the positivist tradition. The positivist tradition is used because of the

need to test the IAM model to explain the behaviour of organisations for IOS adoption. In-depth interviews were sought from two senior executives (e.g. IT manager and business manager) from the company. Established methodological guidelines were applied in order to generate reliable findings. Reliability was addressed by clearly conceptualising research variables, using previously pilot-tested protocols in interviews and using multiple coders in data analysis. The interviewees on many occasions granted access to company documents which often helped us to corroborate the information provided during interviews. The interview transcripts were sent to the interviewees for review. Data collected from the company were analysed using pattern matching logic (Yin, 1994) which allowed us to compare the pattern of outcomes of dependent variable (i.e. IOS adoption processes) predicted from the IAM model with the pattern of outcomes deduced from the case data collected from the company. However, consistent with the notion of analytical generalisation (Yin, 1994), we also checked that the adoption processes were initiated for the same reasons (as reported by the interviewees) as that used in the logical deduction of the propositions.

6 DESCRIPTION OF CASE

The participating case is an established first-tier supplier that produces various types of filters and delivers them to both the production division and parts accessories division of all four automotive manufacturing companies located in Australia. It also supplies filters direct to hundreds of small spare parts retailers some of which are even located in the south pacific islands. The supplier is a medium-sized enterprise, has 200 employees, and makes about A\$50 million sales annually. Its IT department is centralized, has two managers and operates with A\$2 million annual budget. The supplier currently uses the MFGPRO ERP system running on an UNIX platform to support its key business processes.

7 CASE STUDY FINDINGS

This section describes the motivations of the supplier for adopting two different EDI systems at two stages and then, following the notion of IOS adoption motivation scenarios highlighted in Figure 1, classifies the supplier's motivation into two distinct motivation scenarios, one for each stage. The section also discusses the activities involved in EDI adoption process initiated by the supplier during each stage. In doing so, the outcomes of propositions relating to the adoption process (i.e. P1 to P8) are also reported.

Stage 1: DOS-based EDI System - Adoption Motivations and Processes

The adoption of EDI in the supplier company was not conceived internally. In early 1990s, the supplier was approached by an influential customer, a large automotive manufacturing company, which expressed its strong desire to be able to communicate with all its first-tier suppliers through EDI. The automotive manufacturing company also asked the supplier to conduct EDI transactions through its preferred third-party value added network (VAN) provider which it appointed to provide EDI communication support for all its first-tier suppliers. The manufacturing company further suggested that the supplier use its proprietary EDI format to exchange documents with them through the preferred VAN provider. Hence, the locus of motivation for EDI adoption is external.

The primary desire of the supplier in adopting EDI was to comply with the strong request from its major customer (i.e. automotive manufacturing company) to enable the customer to send documents in EDI format. The supplier expected that its compliance with the customer's request would make them satisfied, and thus the supplier would be able to avoid any disadvantage caused by not developing an EDI capability. According to a senior business manager:

“The EDI initiative at our company started at the request of a major customer (i.e. automotive manufacturing company). They were adamant on EDI and we had to comply with their request to make them happy.”

Additionally, the supplier also wanted to be seen as more responsive to its customer needs. Hence, developing an EDI capability was considered to be right option for building a 'customer caring' image in the marketplace. However, the EDI capability was not developed to improve supply chain inefficiency problem. Hence, the type of motivation for EDI adoption can be regarded as socio-political in nature. Based on the above arguments, the EDI adoption of the supplier at this stage can be considered to represent an instance of the socio-political follower scenario.

The supplier did not prepare a carefully crafted EDI implementation plan (P1) because it simply wanted to comply with the customer's request to adopt EDI and hence considered it unnecessary to spend time and effort in rigorous EDI project planning. The supplier also did not initiate a cost-benefit analysis prior when introducing the EDI system (P2). Two reasons were identified: first, a DOS-based standalone EDI system was introduced - the cost of which was less than A\$5000 and this cost was absorbed as a necessary IT operating expense; second, the supplier had no expectations of economic returns from its investment in EDI. Likewise, a post-implementation review of EDI was not initiated (P3) because such a review was considered as a waste of time as the supplier had no intention of investing more resources in EDI project for further improvement.

The supplier had a very low volume of EDI transactions. It received only one weekly production schedule from its customer and in response sent back several advanced shipping notices (ASNs) to the customer. Therefore, senior management did not see any visible benefits that EDI integration could provide to the company. Hence, no electronic integration was established between EDI and the back-end ERP system (P4).

The supplier did not introduce any major changes to its existing supply chain management practices (P5) as a result of EDI adoption. Senior management did not perceive a need for process changes because EDI was not seen as a strategic application nor did EDI help them to determine how many of their filters were used in the production line of the customer. The customer became satisfied when they learned about the compliance of the supplier in introducing the EDI system. In other words, EDI was basically regarded as a tool that helped the supplier to maintain good business relations with the customer that requested EDI connectivity.

The supplier trained its IT personnel (P6) which facilitated them in implementing EDI with few difficulties. The training was provided by the EDI vendor. Interestingly, neither the influential customer which requested EDI connectivity nor the EDI VAN provided any training. Training was also given to the customer service staff; they learned how to operate the EDI system in order to receive and print weekly production schedules and send ASNs.

The supplier did not put any pressure (P7) on the customer to expand the use of EDI in other functional areas. Basically, the supplier adopted a conservative approach; it did not look at EDI as a source of gaining economic advantage, and consequently did not take any initiative to use EDI to share other important information with the customer. Proposition P8, which is about the promotion of the IOS solution was not examined because, as argued in the previous section, it is not applicable for socio-political followers.

Stage 2: Fully integrated EDI System - Adoption Motivations and Processes

In the late '90's, when the Y2K problem received huge attention from the media and popular trade magazines, the senior management of the supplier took a fresh look at their existing portfolio of IT applications. In doing so, they became aware of the difficulties encountered by the customer service staff in dealing with the DOS-based standalone EDI system. The EDI system was not user friendly and because it was not integrated with the back-end ERP system, duplicate data entry was required thus causing data inconsistency problems. The management realised that the EDI system did not bring any economic benefits to the company other than complying with its customer's request.

Around that time, a new young highly educated and dynamic IT manager joined the company and was soon appointed as the Head of the IT department. The IT manager was familiar with the notion of inter-organisational systems. He thus brought in fresh ideas and explained to the senior management

about how a fully integrated EDI system could address their chronic data inconsistency problems. He suggested that the company needed to exploit the full potential of new generation EDI systems in trading with their customers. The suppliers had about 500 small customers (which are basically retailers of spare parts) located throughout the country. Electronic transactions through the new generation of EDI systems with those customers had the potential to bring significant reduction in transaction costs and improve data accuracy. Being convinced with these arguments, a decision was made to replace the aging DOS-based EDI system. A new EDI application was chosen from a vendor in the year 2001 taking into consideration its integration capabilities with the back-end ERP system and its user-friendliness. According to the Head of the IT department:

“The new EDI system was driven by our need to carry out electronic transactions with our small trading partners. It was not introduced in response to a push from them. We rather wanted to reduce data entry errors and cost of transactions.”

It is therefore obvious that the locus of motivation for the new EDI system is internal and the type of motivation was techno-economic in nature. Hence, the EDI adoption at the second stage can be considered to represent an instance of the techno-economic leader scenario.

Prior to making a decision to adopt the new EDI system, the IT department conducted a formal implementation planning (P1). The plan included preparing a detail justification for the new EDI system, specifying a time frame for EDI implementation, organising a series of presentations by four leading EDI vendors, and establishing criteria for evaluating rival EDI products. A cost-benefit analysis was also conducted (P2) which took into account potential immediate cost savings due to the elimination of data entry errors and reduction in paper-based transactions. Upon deployment, a post-implementation review also took place (P3) involving discussing implementation problems and identifying corrective actions. According to the IT manager:

“We made a capital expenditure request. We also had presentation conducted by various EDI vendors, and then, we weighed the pros and cons of each EDI offering in terms of how much it was going to cost us as well as the benefits to be obtained...so we had to prepare a business case.”

Following the acquisition of the new EDI system, the IT department spent the next 2 months integrating the new EDI system with the back-end ERP system (P4). The integration began to yield benefits as data entry errors and paperwork were reduced. In addition, cost-savings were also achieved by being able to limit the number of administrative personnel processing EDI documents.

The establishment of integration between the new EDI system and the back-end ERP system eliminated the need for customer service staff to manually processing EDI documents. However, the new EDI system did not bring about additional changes to the supplier's business processes (P5). The supplier faced difficulties in persuading the automotive manufacturing companies to agree on a uniform standard for exchanging EDI messages. Consequently, considerable effort had to be devoted to the development of EDI templates and maps for each automotive manufacturing company. Furthermore, senior management did not perceive a need to improve their existing ordering process. According to the Head of the IT department:

“At this stage, the new EDI system has not changed much of what our sales and marketing people do. We had to prepare EDI forms and maps and stuff. It was difficult because each of our key trading partners (i.e. automotive manufacturing companies) had their own maps and their own message guidelines... There's also sheer arrogance on their part to sit down and agree on standards.”

The IT team attended a training program organised by the EDI vendor which helped them to develop an electronic interface between the EDI system and the back-end ERP system (P6). The cost of the training was absorbed as a part of the EDI implementation project. No training was however offered to the customer service people because they did not need to view the EDI-based documents.

The supplier did not coerce the small retailers into trading with them through EDI (P7). The supplier rather explained the possible improvement in data accuracy and savings in transaction costs that those retailers are likely to achieve if they embrace EDI. The supplier was also actively involved in promoting the notion of doing business through EDI to the retailers (P8). It identified that one of the barriers that was discouraging the small retailers was the absence of a standard EDI format. The supplier then led an initiative to standardise EDI formats for electronic transactions with retailers in the after-market. The managing director of the supplier was also involved at the executive committee level of the Australian Automotive After-market Association (AAAA). According to the Head of the IT department:

“In the after-market, consisting of smaller mum-and-dad retailers, and through the auspices of the AAAA we decided to form a forum for uniform EDI messages. The idea was to come to a conclusion on a standardized form for EDI messages”

8 DISCUSSION

The empirical evidence presented in the previous section clearly suggests that the motivations that have driven the supplier in adopting EDI systems have changed over the course time. In the first stage, the initiative to introduce a DOS-based EDI system originated from an influential customer and the supplier invested in EDI to make that customer happy. In the second stage, the opportunity of achieving efficiency gains using new generation EDI technologies inspired the supplier to embrace a fully integrated window-based EDI system. In the light of these observations, it can be argued that the supplier has migrated from the socio-political motivation scenario to the techno-economic leader scenario.

Most of the activities performed by the supplier during each of the two stages of EDI adoption are consistent with the predictions shown in Table 1. This supports the fact that organisations tend to follow characteristically different adoption processes when they establish different motivations for IOS adoption. The empirical findings also offer broad support for the IAM model in a different industry context from the pharmaceutical sector in which the model was initially tested.

Table 2 summarises the support received for the propositions at each stage of EDI adoption and indicates that all the research propositions (i.e. P1 to P7) received full support in the first stage of EDI adoption. In the second stage, all but one proposition was supported. Proposition P7, which is about introducing changes in business processes, did not receive support because the supplier failed to receive full cooperation from its large customers (i.e. automotive manufacturing companies) which pursued their own agenda of using proprietary EDI formats for competitive reasons. This factor is unique to the automotive industry and may not be observed in other industry contexts.

9 CONCLUSION

We have discussed the application of the IAM model to explain the IOS adoption practices of a first-tier supplier that provides filters to all automotive manufacturing companies located in Australia. The IOS adoption experience of the supplier is interesting because the company has undergone two distinct stages of EDI adoption, and each stage is characterised by different motivations. We have also observed considerable differences in the EDI adoption processes at each stage. This suggests that even if an organisation introduces an IOS for a particular motive it is not necessary for them to cling to that motive for the adoption of subsequent IOS solutions. The implication is that it is possible to observe variations in IOS adoption processes even within one organisation and such variations are due to the differences in the organisation’s motives for IOS adoption.

Hence, there is evidence to suggest that the IAM model, which was initially developed and tested in the pharmaceutical industry context, could also have relevance to the automotive industry. We

however acknowledge that as the EDI adoption at the supplier represents instances of the ‘techno-economic leader’ and ‘socio-political follower’ motivation scenarios, our claim of the applicability of the IAM to the automotive industry should be taken with some caution. We acknowledge the need for undertaking further work which would include more case organisations that will serve as the instances of the remaining two generic motivation scenarios. Despite this shortcoming, we believe that the findings reported in this paper are useful because they contribute to the IS literature by highlighting the role of motivation as a determinant of IOS adoption processes. The practical implication is that, by knowing their own motivations for IOS adoption, potential IOS adopter organisations can obtain insights about how to initiate adoption processes which in turn can bring a reduction in the uncertainty associated with their IOS adoption.

Table 2. Outcomes of the propositions relating to IOS adoption processes in two distinct stage of IOS adoption.

<i>Stage 1: DOS-based EDI adoption</i>	<i>Outcome of proposition</i>	<i>Stage 2: Integrated EDI adoption</i>	<i>Outcome of proposition</i>
<i>Propositions for socio-political follower scenario</i>		<i>Propositions for techno-economic leader scenario</i>	
<i>P1: Socio-political followers are unlikely to prepare an IOS implementation plan</i>	<i>Supported</i>	<i>P1: Techno-economic leaders are likely to prepare an IOS implementation plan</i>	<i>Supported</i>
<i>P2: Socio-political followers are unlikely to initiate cost-benefit analysis of IOS</i>	<i>Supported</i>	<i>P2: Techno-economic leaders are likely to initiate cost-benefit analysis of IOS</i>	<i>Supported</i>
<i>P3: Socio-political followers are unlikely to perform a post-implementation review of IOS</i>	<i>Supported</i>	<i>P3: Techno-economic leaders are likely to perform a post-implementation review of IOS</i>	<i>Supported</i>
<i>P4: Socio-political followers are unlikely to integrate IOS with back-end IT systems</i>	<i>Supported</i>	<i>P4: Techno-economic leaders are likely to integrate IOS with back-end IT systems</i>	<i>Supported</i>
<i>P5: Socio-political followers are unlikely to introduce changes in the business practices</i>	<i>Supported</i>	<i>P5: Techno-economic leaders are likely to introduce changes in the business practices</i>	<i>Not Supported</i>
<i>P6: Socio-political followers are likely to organise IOS training</i>	<i>Supported</i>	<i>P6: Techno-economic leaders are likely to organise IOS training</i>	<i>Supported</i>
<i>P7: Socio-political followers are unlikely to apply pressure on partners</i>	<i>Supported</i>	<i>P7: Techno-economic leaders are unlikely to apply pressure on partners</i>	<i>Supported</i>
<i>--</i>	<i>--</i>	<i>P8: Techno-economic leaders are likely to market IOS concept</i>	<i>Supported</i>

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