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A CRITICAL REALIST PERSPECTIVE ON THE ADOPTION OF INTERNET TECHNOLOGIES IN THE TRAVEL SECTOR

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Abstract

The paper adopts a critical realist perspective in examining Australian travel agents' uptake of Internet-based technologies and associated managerial changes. The research was prompted by the observation that the advent of the Web did not seem to provide the expected proliferation of new travel agency intermediaries given that the Web had promised a new frontier with new intermediaries and radical change within the sector. A series of qualitative interviews were carried out to explore the strategic decisions the travel agents made with regard to the advent of the Internet. This research made clear the overwhelming regulatory procedures that influence the composition (incumbent agents and new entrants) of the sector. Using the philosophy of critical realism as an underlabourer the research findings document how changes experienced by a firm in the travel sector have been influenced by forces far beyond the immediate control of the individual travel agent's appropriation of available resources and investment opportunities.

Key Word; Critical Realism, Regulatory Process, Structuration, Travel agency, Travel sector, Australia.

1 INTRODUCTION

Critical realism has been proposed as a suitable underlabourer for information systems (IS) research (Dobson, 2001, 2002; Mingers 2004) yet there have been few practical examples of its use in IS research. The dearth of practical examples of critical realist use is perhaps not difficult to understand when one considers that the philosophy provides little real guidance as to methodological development. As Stones (1996) suggests contemporary realist examination requires precision and contextualized detail, this contextualization being a necessary consequence of an underlying ontologically bold philosophy (Outhwaite 1987, p. 34). Critical realism not only encompasses an external realism in its distinction between the world and our experience of it but it also suggests a stratified ontology and depth realism in defining the objects that make up such a world. This concept suggests that reality is made up of three ontologically distinct realms (Lawson, 1997):

1. the empirical (i.e. experience);

2. the actual, that is events (i.e. the actual objects of experience); and

3. the transcendental, non-actual or deep, that is structures, mechanisms and associated powers.

The ontological complexity assumed by critical realism has, however, been matched by a conservative epistemology that leans heavily on scientific argument and development. As Stones (1996) suggests contemporary realist research needs to be more aggressive in its methodological approach as it must account for the underlying ontological richness that is implicitly assumed by its assumption of depth realism. Similarly its argument for an external realism implies that any knowledge gains are typically provisional, incomplete and extendable. Realist methodologies and writings, thus, need to reflect a continual commitment to caution, scepticism and reflexivity.

This paper examines how Internet adoption has influenced the travel sector in Australia. It seeks to address the reasons behind the seemingly limited structural change consequent from uptake of the Internet by travel agents. The analysis is based around critical realism and aims to demonstrate some of the key features of a critical realist methodology.

Having introduced the topic of interest, this paper proceeds to offer an introduction of critical realism as underlabourer in Section 2. Section 3 presents a brief discussion of the research methodology adopted in this study. The findings are then presented in Section 4 and subsequently a framework is proposed in Section 5. Finally, Section 6 provides conclusions including research contribution drawn from this research.

2   CRITICAL REALISM AS UNDERLABOURER

The assumption within critical realism that the social world is an open system ensures a complexity in its analysis. As Collier (1994) suggests in open systems "…a multiplicity of mechanisms is operating, conjointly bringing about a series of events, which would not have been brought about by any proper subset of those mechanisms" p. 43-4). The assumption of the openness of social systems and the lack of pre-determination in outcomes is also consistent with the critical realist confidence in the agent's ability to "make a difference". As Lawson (1997) suggests social structure is human agent-dependent: it is only ever manifest in human activity. The ways that agents accept and modify pre-existing structures are fundamentally important within critical realist study. Consistency is also a major aim of realist research – the realist argues that the tripartite connections between ontology, methodology and practical theory need to be recognized. As Archer (1995) suggests: "the social ontology endorsed does play a powerful regulatory role vis-à-vis the explanatory methodology for the basic reason that it conceptualises social reality in certain terms. Thus identifying what there is to be explained and also ruling out explanations in terms of entities or properties which are deemed non-existent… Such consistency is a general requirement and it usually requires two-way adjustment" (p. 17). This two-way adjustment requires a contingent ontology in order to work in that if a particular non-consistent theory works very well it may well raise ontological and philosophical questions that would need to be addressed.

Whilst critical realism does emphasize ontological matters and thus has a lot to say about the research object, it also provides guidance in defining the research method. For example, critical realism argues against the inductive argument of traditional interpretive study and relies on retroduction as its methodological focus. Within the social arena retroduction involves the postulation of social structures or mechanisms that make or have made a significant causal contribution to the social phenomena that the researcher is aiming to explain. The social structure or mechanism postulated must be then demonstrated to exist and its mechanisms explained in order to provide a convincing explanatory account. As Stones (1996) suggests the critical realist "method""… combine[s] a real definition of an object and retroduction in an explanatory account [which] means, in common-sense terms, that one makes an informed guess as to what is doing the causing (retroduction), gives a clear and detailed

definition of what this causal element is (real definition) and then shows clearly that it is indeed doing a significant amount of the causing" (p.37).

Such an approach has been open to post-modern criticism for its suggestion that a researcher could ever hope to delineate a historical or social process in so accurate and self-contained a manner that it could then be possible to trace a causal influence through a complex series of successive interactions. Yet for the realist an attempt must be made, even though such explanation must be contingent and open to criticism. As Sayer (2000, p. 2) argues:

> *"Realism is therefore necessarily a fallibist philosophy and one which must be wary of simple correspondence theories of truth. It must acknowledge that the world can only be known under particular descriptions, in terms of available discourses".*

In terms of the current study the realist enquiry was prompted by the observation that the advent of the Web did not seem to be providing the expected level of opportunity for smaller agents. In addressing this issue the research seeks to address the following questions:

- What mixture of coordination forms (governance structures) constrained agency operations after the introduction of the Internet?
- How did these governance structures impose themselves on agencies (mechanisms)?
- How have these new coordination forms influenced the subsequent structuration of travel agents?
- How have the incumbent agencies maintained their competitive advantage in light of tight professional-coordination mechanisms?

The research fundamentally adopts a critical realist stance in its proposal that external structures and regulatory requirements have massively restricted the free adoption of Internet opportunities. The research depends heavily on analytically examining the different macro and micro level on Internet adoption. Such an analysis reflects a critical realist argument that an analytical dualism is useful to represent a complex duality of agency and structure. As Archer (1995) argues: 'structures, as emergent entities are not only irreducible to people, they pre-exist them, and people are not puppets of structures because they have their own emergent properties which mean they either reproduce or transform social structures rather than create them' (p.16).

3   THE RESEARCH APPROACH

The selection of a research approach and the methodologies employed to undertake the research are influenced by the phenomenon being investigated (Leonard-Barton, 1990); the place of the research in the context of theory development (Galliers *et al.*, 2000); and the various institutional contexts within which the researcher is trained and works (Orlikowski *et al.*, 2001). The methodology used in this research was developed by carefully considering the data needed to elaborate on the role of the travel sector's governing bodies and extent of IS adoption among the travel agencies.

Schultz (1962) states that "the most serious question, which the methodology of the social science has, is: How is it possible to form objective concepts and objective verifiable theory of subjective meaning structures" (p.34). In addressing the point raised by Schultz (1962), a qualitative case study approach was used to gain an understanding about 'how' IS is adopted across the travel agents participating in this study and why there are variety in the firm types when the imposition of the IS regulations was intended to standardise the operation of all members of the IATA regardless of their size and the type

of service they provided. For this reason, case studies were used to determine the conditions that surround IS adoption. In addition, case study research was used to describe events leading to the diffusion and the outcomes of technology adoption. This assisted in building a plausible explanation of the dynamics of relationships between individual travel agent and the regulatory bodies (Damsgaard *et al.,* 2001).

Case study research is appropriate in situations where the research question involves a *how, why* or *what* question and where the investigator has no control over actual behavioural events. A case study is an empirical inquiry that involves data collection from multiple sources to investigate a contemporary (as opposed to historical) phenomenon in a real life setting where the boundaries between phenomenon and context are blurred (Yin, 2003). It is particularly suitable for areas where research and theory are at their early formative stages (Benbasat *et al.,* 1987).

Cavaye's (1996) overview of case study research in IS showed that it was highly versatile and can be used in the positivist and interpretivist traditions, for testing or building theory, with a single or multiple design and using qualitative or mixed methods. Case studies can be used to investigate a complex phenomenon at a point in time or they may be longitudinal.

Interviews were used as a primary and secondary source of data. As a primary source, they were used to determine the key factors influencing the front-office strategies of individual travel agents. Taylor *et al.* (1984) have clear views and advice about interviewing. In structured interviews they believe that people seldom express their true feelings and views, possibly because the interviewer acts as a disinterested figure. In stark contrast to structured interviews, unstructured interviews are flexible and dynamic, as questions are open-ended. Taylor *et al.* (1984) state that when adopting unstructured interviews or 'in-depth interviewing' the interviewer acts as the research tool not the interview schedule or protocol. In essence, unstructured interviews are useful for learning about matters that cannot be directly observed. According to Taylor *et al.* (1984) no other method "can provide the detailed understanding that comes from directly observing people and listening to what they have to say at the scene" (p.79). Utilising semi-structured interviews, participants were encouraged to openly speak about their experiences in the sector during the post-Internet period. Interview questions moved from general to specific aspects of diffusion of IS technologies which had been previously identified in the review of the literature.

The sampling process got underway by selecting the participants from two basic categories; independent travel agents and nation-wide franchisors. The franchisors selected each had at least 20 franchisees, all with the Internet presence and physical premises in the city. All interviews were taped and the transcripts were sent to the interviewees for validation. Other data collected included system documents, planning documents and minutes of relevant meetings; and industry reports from the sector's global and national governing bodies.

Within the five travel agents participating, a total of 25 participants from the director to the International Air Transport Association IATA (What does this stand for?) affiliate managers took part in the interviews. The content of more than 280 pages of transcripts were categorised and analysed using NUDIST grounded data analysis software. Qualitative content analysis (Miles and Huberman (1994)) was then used to analyse the data from the case study. The analysis of the case study results were sent back to participants and were later cross checked with published industry data.

4   FINDINGS

The travel sector is one of the largest industry sectors in Australia with an annual income of AUS$2,250 million (KBT, 2006). Given Australia's isolation the performance of the travel retail market is closely tied to that of the airline industry - commissions from ticket sales tend to make up a

large proportion of agency income. Before the mass use of the Internet, independent travel agents worked more in isolation from each other, in that they each represented a few airline companies and hotels. Linkages with travel suppliers were possible via Electronic Data Interface (EDI) but it was expensive and required the use of the proprietary software of the large suppliers. Interconnection of agents was similarly difficult and expensive. Airlines and other providers of travel services used these as barriers to entry for new suppliers and allowed them to largely dictate their own terms and prices (KBT, 2006).

As the Internet was introduced to the sector, many large Australian airline companies bypassed the travel agents and offered their services to customers directly over the Internet. The consequence of this was that many Australian travel agents were dis-intermediated as they not only lost their links with the airline companies but also access to travel and tourist information. The airlines embraced the Internet to improve the sales, customer service and communication with their customers, whilst eliminating the middlemen and thus reducing third party costs. This creation of new supply points and direct Internet sales channels resulted in the disintermediation of many small independent travel agents as they became no longer competitive. In addition, the travel sector also went through major structural changes (mergers and acquisitions of small agents by bigger entities) as economies of scale became the main factor that enabled existence within the marketplace. Large travel agents invested significant amounts of capital in order to upgrade their systems so that they were then able to, not only represent more airlines, but also sell and promote other travel-related services. Smaller travel agents had three possible options; join bigger entities as affiliates, create a very specific and well-endowed niche, or, move out of the sector altogether.

As the new business models became grounded in the sector, it was evident to travel consumers that the airlines could not provide the close personal relationship the travel consumer required. This resulted in considerable re-intermediation of travel agents with various levels of Internet adoption effectively leading to the re-intermediation of two groups of travel agents; traditional travel agents employing web technology selectively to enhance their existing processes and online agencies who wholeheartedly adopted the Internet to completely revolutionize the services they provided to customers. This change in the way travel agents interacted with customers lead to multiple levels of service and opportunity. Customers could use the Internet to purchase travel products whilst the travel agents could either provide transaction platforms or simply use their presence on the Internet as an information providing channel for prospective customers. In addition the travel agents used the web as a bundling platform to sell 'one-stop' travel packages thus resulting in vertical integration of products and development of vertically formed inter-firm networks.This was elaborated by the senior manager of the participating travel agencies who stated that;

> "Our business basically comprises a network connecting dissimilar competences and resources into scripts that meet the experience sought by consumers. Be it a multiple-leg business trip with over-night accommodation and three stopovers or a package to 'do' Indonesia in three weeks. Based on a common pool of market and marketing data such a network connects dissimilar competences and resources into a consistent service-script."

The Internet has enabled communication and cooperation between a wider range of potential customers and suppliers which has allowed for products to be more readily tailored to customer needs. In addition, customers became more empowered to search for more accessible information. As the sales manager of one of the big franchise operators pointed out:

> "One of the significant things that the Web has done is it has moved us from a world where the seller is in charge to one in which the buyer is in charge - this means an individual person does not need to rely on the selling entity to be able to be in control of the situation".

"[For] A lot of the companies here their goal is to provide people the kind of information they need to make a decision right there, not an hour later on the phone, not the next day, you know, sending in something via fax, right then and there, the creation of marketing channels. And that is part of the reason why it has seen so much acceleration in this market place".

After the initial disintermediation and the subsequent re-intermediation of the travel agents, the advent of the Internet at first allowed small travel agents to represent a larger number of airlines, hotels and other suppliers in the sector. One effect was that the degree of control previously exercised by the large suppliers was diluted by being spread amongst a multitude of smaller organizations. This proliferation of agents was however hindered as agents' still required IATA registration and travel booking infrastructure such as SABRE and Galileo licensing.

"The IATA basically created a buffer against the mass entry of online travel agents only offering minimal service. Through intense lobbying with the national travel associations and through negotiations with IATA regional bodies, all the agents and travel service companies needed to have a licence for their operations and IATA was the sole body in charge of this, ………basically a direct contractual relationship with IATA that gives you the right to sell international airline tickets (accreditation). An intermediated negotiation relationship with IATA, at least for the SME-segment of the sector, and dominant airline, via the representatives of the associations they are affiliated with allows flexibility to trade as affiliates."

These macro-level impositions limited micro-level changes as one of the participating directors pointed out:

"Industry went through a number of rationalisations. At first-travel brokers popped up everywhere and we were really concerned about this since a majority of our customers that were previously coming to us left basically.

I think the main change was the notion of loyalty changed. Price became a very important motivating factor in changing loyalties….The good thing that happened was that the IATA introduced new regulations that virtually stopped any average Joe to open an e-shop so to say. There were rules and procedures to follow and these rules cost money and by the time you adhered to these rules your margins was not that different from a normal travel agent".

This emergence resulted in a rethink of dimensions of adoption of the new technology on the part of the researchers.

4.1   Dimensions of adoption: The separation of the front office and the back office

IATA requirements placed additional obligations on agents that were not necessarily technology-driven. As one travel agency commented:

"…[IATA] maintains contacts with suppliers (aircraft builders) and regulators (governmental bodies), sets world-wide standards in conjunction with relevant stakeholders, takes care of the global distribution and redistribution of revenues of

airline tickets, develops courses for the airline industry and accredited travel agencies and several units concern themselves with research and development."

"In return for all this, the IATA requires your membership and complete adherence outlined by the IATA manifest. Since this practice is globally accepted, if you are not IATA accredited, you simply cannot trade……This is not necessary a technology-drive thing, rather, I believe it is a set of rules that are not necessarily technology-based but are based on the rules and regulations that had been established over the years".

"Accreditation means that although [IATA] has no direct influence on the actual choice of the system, but the issues such as compatibility and its strict legal and professional requirements in addition to what the Australian bodies require for us means at the end of the day …we use the systems and the platform that IATA favours."

It became obvious as the interviews progressed, that back-office and front-office operations needed to be considered separately in understanding the mechanics of Internet usage and adoption. The back-office refers to the administrative tasks and requirements that the travel agents needed to carry out without involving the end customer. The customer usually did not see the back-office operations (clearance and transactions) of the travel agents however the requirements of these back-office systems imposed severe restrictions on participating agents. The availability of suitable trade platforms is limited and requires strict observance to IATA guidelines, regardless of the platform. Front-office on the other hand is the actual point of sales and marketing communication where the travel agents get directly involved with the end customer. In the context of uptake of innovation, it became evident that the front-office became the point at which the actual differentiation from peers and imposition of innovative sales and marketing practices occurred.

The back office of the travel agents comprises a number of big reservation and clearance systems. The back-office is controlled by the Agency Programme (AP). As one travel agency commented

"This system is largely a legislative framework consisting of a bundle of contracts that stipulate minimum requirements travel agencies have to fulfil. It covers administrative, economic and other formal aspects of the airline-agency relationship. The AP's aim has always been to identify and appoint professionally sound and financially reliable travel agents as viable points for sales from the International Air Transport Association's (IATA) Member airlines."

The AP is used as a basic legal framework that acts as a layer of structure maintaining minimum standard of practice and at the same time at the basic level of operations, acts as a unifier of practice of the travel agents. As one travel agency commented

"The programme is based on a universal principal-agent relationship. Or at least this was the case at its inception, nowadays; the USA has a separate distribution system. The distribution system is therefore not a truly global one anymore although they are linked operationally. Sales Agency Rules (SAR) tailor the generic bundle of contracts to local market conditions."

In the back office of the each travel agent, IATA Distribution Services (IDS) operates the BSP's (Billing and Settlement Plans) and CASSes (Cargo Account Settlement Systems), collectively known as IATA Settlement Systems (ISS), on behalf of the airline industry. Since 1971 BSP's (Billing

Settlement plans) have become the backbone of the Agency Programme. Through this facility, agents get the means to issue tickets in the carrier's name whilst at the same time, a carrier has a cheap and relatively low risk means of maximising its marketplace representation. Airlines can add new destinations to their network without having to bother building a key external resource, a distribution system and intermediaries that sell the new destination. Through the new technology, communication has greatly improved. For example, besides the processing of tickets it is currently possible to process a car or hotel reservation through the distribution system; electronic ticketing is developed and a web-based (real-time) distribution system is put in place. This has made booking a journey cheaper, faster and far easier.

This is part of a larger transformation in which IATA is attempting to become the number one travel, transport and tourism facilitator of the world. The AP program and IATA also promoted a closer relationship between the airlines and the travel agents which allowed a re-intermediation cycle as travel agents used this closer relationship to improve the quality of information and service. This competitive advantage resulted in the reclamation of many customers lost to online travel brokerages and direct sales by the airlines. These airline sales rely heavily on cheaper prices in return for minimal information and customer service. The senior sales and clearance manager at a participating travel agency pointed out;

> "I think the benefit of a strong relationship between the travel agents and the airline companies is two fold; Firstly, for airlines it is the prime distribution system, involving low costs and global reach, in which the reporting, remitting data are all common. Secondly, for agents it's a licence that adds value by means of giving access to a worldwide distribution system (network-externalities). As opposed to the CRS's [Computer Reservation Systems] which have a more limited coverage."

4.2 Where does change manifest itself?

The influence of normative and professional structures is very apparent in the back office of the travel agents. Technology has in effect strengthened the position of structures in controlling the operations of the travel agents, such an effect being in contrast to traditional arguments suggesting the emancipatory possibilities of technology. This emanicipatory potential for technology is far more visible in the front office operations of the travel sector where the Internet is used in providing real-time and up-to-date information for clients. Alongside the required adherence to rules concerning the sales and security of online transactions, travel agents are allowed to choose, develop, nourish and maintain their presence on specific niches, servicing specific group of clients.

Micro-level change in the way that the Internet was used provided an ability to differentiate services. This prompted further change at the macro level as agents adopted and infused the Internet into their operations. The restructuring acted as a stimulus to entrepreneurs to develop businesses to supply information and services to the large supplier companies, to the travelling and touring public and to the travel agents. It also allowed travel agents to deal with a variety of suppliers and enter into cooperative deals with a wider range of businesses. As far as the franchising participants were concerned, they and their franchising departments developed relationships with suppliers and developers of tour packages and marketed them through their franchisee travel agents. One effect was that the degree of control previously exercised by the large suppliers has been diluted by being spread amongst several new large and small organisations. As one travel agency commented

> "We knew that having 2 or 3 booking systems had virtually eliminated any chance of competing on technology…I mean how fast can you get…so we saw sales and customer service as the only was out so to say…So the problem was not what you do

with the system but how well can you utilise it to keep the customers happy.

  "Succeeding in on-line travel is difficult and expensive and that is why we have
  created this network that includes the brick and mortar because we do really believe
  that these two aspects of the retail travel business are going to work well together and
  relationships and service still count and as a purely on-line travel business we realized
  that we needed the support of the travel agencies and the travel agents also needed us
  because consumers were doing so much research on line".

The Internet was a trigger for disintermediation of the travel agents and prompted many travel agents
to reinvent themselves either as firms servicing outsourced functions of the airlines and bigger travel
agents (e.g. back-office operations) or as firms servicing a specific niche. This specialization was also
a consequence of a unification of practice, in that sector protocols developed forcing internet unified
trading platforms and back-office operations. This standardization of technology required that agents
needed to differentiate themselves essentially via sales and marketing.

5   PROPOSED FRAMEWORK

By employing a critical realist perspective, a framework is proposed which looks at the process of
change in the travel sector from a structure, mechanism and events dimensions. In addition, each of
the said dimensions are examined from a macro and micro perspectives. As far as the level of analysis
is concerned, the macro level of analysis denotes the introduction of the innovation where opportunity
to further strengthen the efficiency and monitoring regimes of the sector are recognised by the
regulatory authority in the sector. This results in the setting of macro boundaries and paths to growth
where the influences range from the regulatory bodies, professional organisations and global
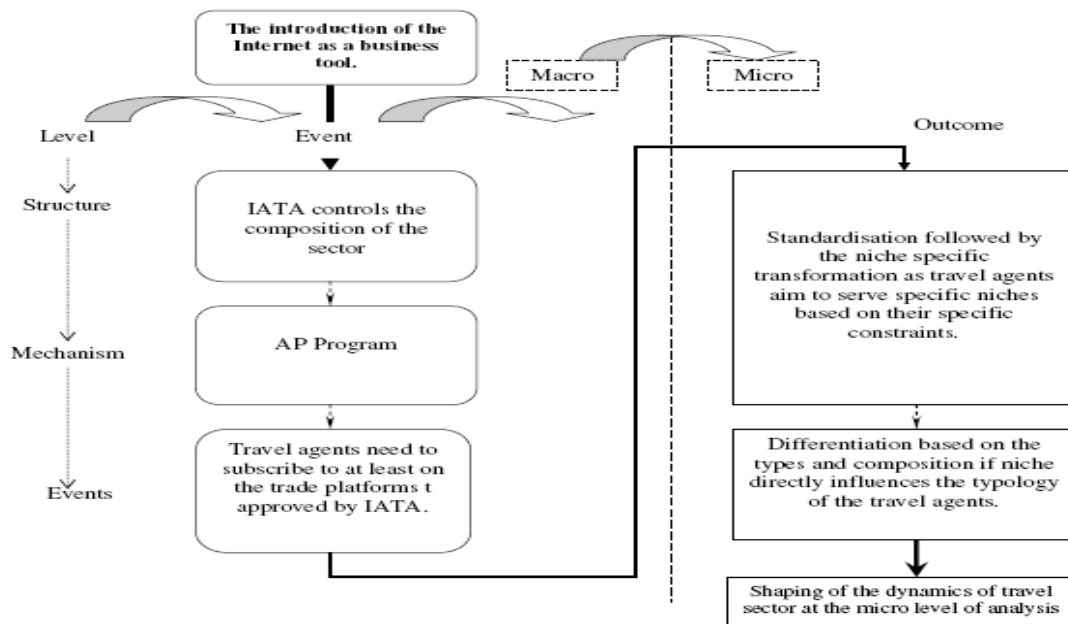regulatory and trade entities.

Figure 1- The proposed conceptual framework

As Figure 1 indicates, with regard to the micro-level of analysis, the change in the sector resulted in two possible out comes. Initially, the unfit agents withdrew from the sector and secondly the remaining agents adapted to the new situation. Upon integrating the macro and micro levels of analysis, the dialectic framework approaches innovation uptake as a process of purposive transition, where, the environment imposes protocols and understandings that will determine the sector structure at a macro level. Once the macro influences bed down within the sector, firms actively then sought to differentiate themselves. As the Internet was diffused in the sector, it, at first, resulted in price wars as reducing the cost of transaction had increased price-based competition. This resulted in entry of new online agents competing for a piece of the market based on low prices and it prompted the traditional travel agent to rely on their relationship with customers. Over time, the Internet resulted in convergence of organizational archetypes as a result of unification of practice where traditional agents also dealt with online transactions in parallel to their brick and mortar presence.

The evolution of the sector is the result of a series of transition steps as structures manifest themselves through various mechanisms and event outcomes. The change in the sector can be further artificially separated into two overarching dimensions at a macro and the micro levels of analysis. In Figure 1 it is indicated that, upon introduction of the Internet change trigger to the sector, initially the extent and scope of uptake is driven by the regulatory authority of the sector. This manifests itself in a mechanism where only a handful of trade and clearance platforms are made available to the travel agents. This deterministic unification, at least as far as the back office operations are concerned, shapes the blueprint for the legitimate structural and organisational forms.

The change mechanism after the transformation of the macro level dynamics of the sector is perpetuated across the each member of the sector. After close adherence to the overall rules and regulations and subscription to the trade and clearance platforms each of the brokers are allowed limited niche-based change. This means there is a phase where all brokers are essentially similar, followed by the niche specific transformation as travel agents aim to serve specific niches based on their specific constraints. In the differentiation phase essentially, there is a niche-based pull mechanism emanating from customer requirements where the types and composition of the niche adopted directly influences the typology of the travel agents.

6   CONCLUSION

The open systems nature of the travel agency settings requires the consideration of a multitude of mechanisms evident in both the front office and back office conjointly bringing about a series of regulatory and legal structures which necessitated a degree of innovation and strategic choice at firm level. The macro level imposition of IATA and AP regulations and technology adherence provided a preliminary unifier of practice at first; however as firms and innovations matured, existing firms sought strategic differentiation. The uptake of innovation within the travel sector can be seen as a process whereby technologies and managerial innovations are created, recreated and packaged through a network of active associations and alliances (Baum and Powell, 1995).

Smith (2005) gives a critical realist perspective on technology when he suggests "technology introduces resources and ideas (causal mechanisms) that may enable workers to change their practices, but these practices are also constrained and enabled by the structures in which they are embedded…Thus, …a researcher must try to understand how the generative mechanisms, introduced by the technology into a particular context of structural relations that pre-existed the intervention, provided the resources and ideas that resulted in changes (or not) to individual practices that then either transform or reproduce those original structural relations". (p. 16). This paper has followed this frame of reference quite closely. IATA imposed regulations both enabled and constrained firm competitive activity.

The critical realist assumption in this approach agrees with the notion that human actors or agents are both enabled and constrained by structures, yet these structures are the result of previous actions by agents. Structural properties of a social system consist of the rules and resources that human agents use in their everyday interaction. These rules and resources mediate human action, while at the same time they are reaffirmed through being used by human actors or agents.

This paper looked at the consequences and opportunities created as a result of the technology and managerial innovations derived from the advent of the Internet amongst travel agents. The accommodation and acceptance of technology is influenced by forces far beyond the immediate control of the individual travel agent's appropriation of available resources and investment opportunities. The travel agents' choice of new system and managerial practice was not solely the domain of the management of the travel agency.

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