DATE: **Tuesday, 19 February 2019**
REV No: **4**
PAGES: **25**
WORDS: **7376**

WORKING PAPER SERIES:

INNOVATION AS A SINGULAR ENABLER

Abstract

In this paper, we consider the value of knowledge in an innovation context and deliberate a contrary perspective from existing empiricisms to bring about better innovation efficiency within multi-agent arenas. To do this, we consider why, if innovation is key for developmental trajectories in a healthcare environment, and despite the resource utilised to examine its characteristics, the transfer of knowledge within healthcare, practitioner or organisational innovation domains remains a problematic event.

We reflect on this duality with a doxastic attitude and draw on modal maps as underpinning structures to present a critique. Furthermore, we draw from these qualitative descriptions of conditional maps as a natural extension of contemporary KBF (*Knowledge Belief Frame*) models. Thus, from an innovation context, we can deliberate the parallelism between an agent who establishes belief in real time propositions, and a formal system from which they derive the proposition and reality. Uniquely, in doing so we build a legitimate frame of reference by highlighting managerial parallelisms, which synthesise key epistemic doyennes and, efficaciously underpin the plausibility of logical associations and decision-making drawn from a first-person architype of belief.

Key Words: Business Management, Innovation, Doxastic Maps, Knowledge Transfer.

INTRODUCTION

For this discussion, we adopt structures of Healthcare Management as the context of innovation within the core discussion, by recognising the logic of epistemic actions as a priori aspects of decision making in relating to innovation. Our critique is positioned from the perspective of conceptual empiricism (Ginsborg, 2006; Moyal-Sharrock, 2013). We further draw from (De Marco & Romaniello, 2011; Gardenfors, 1986) for belief revisions and link to (Yager, 2001) for primary discussion around multi agent decision making. This allows for a logical descriptor point as the juncture between innovation and knowledge and permits a useful predicate for axiomatization of decision making at the onset.

Innovation as a context

Sheng et al (2013) argue that the purpose of knowledge transfer is to improve the ability of members to enhance organizational performance. Credible authors such as Brockman and Morgan, (2003) further note that knowledge transfer supports innovation through problem definition, alternative generation and evaluation, and the selection of what knowledge is transferred. From the viewpoint of Sheng et al (2013) increased levels of innovation and performance are only achievable once an organization increases its knowledge internalization to a sufficient level to support an innovation trajectory. Drawing from this research, we can see that they exposed an unfamiliar perspective, whereby, utilising effective information technology competencies can allow healthcare organisations to overcome recognised limitations in both knowledge stickiness. Therefore, provisioning a higher degree of innovation becomes realised (Chien Hsing, Shu-Chen, & Hsin-Hui, 2013; Gausdal & Nilsen, 2011; Oborn, Barrett, & Racko, 2013; Tuan, 2008) and ‘knowledge ambiguity’ (Fulop, 2012; Stetler & Magnusson, 2015; Tansley, Huang, & Foster, 2013; Windecker et al., 2015). However, information technology is not the only solution needed to support knowledge transfer in this

environment. This is because aligning knowledge transfer effectiveness and innovation can be viewed as a complex, dynamic process, which is difficult to embed (M. Fascia & Brodie, 2017). In the UK, to help overcome such issues, there is utilisation of industry and academic collaboration linked to internal knowledge brokers (Carnovale & Yeniyurt, 2015; Luke, Verreynne, & Kearins, 2010; Meisel, Gollust, & Grande, 2016) all focused on problem solving.

The inevitability for improvement

By placing validation of innovative elements at this juncture, it is easy to see many informed perspectives, driving the need for innovation (Christina Beach, 2007; Lee, Moy, Kruck, & Rabang, 2014; McLaughlin & Militello, 2015; Savory & Fortune, 2014), particularly within a pressurised environment such as the healthcare sector (M. Fascia & Brodie, 2017). Contemporary work indicates three acute facets, which rely heavily on innovation to stimulate business trajectory and sustainable growth (Bhayani, 2015; Genaidy, Sequeira, Rinder, & A-Rehim, 2009; Servaes & Lie, 2013). Thus, we can readily identify these rudiments as social and economic aspects affected by rising costs of treatment. Thus, all three necessitate a focus on innovation to improve efficacy and efficiency and or an underpinning strategy enabler (King & Foley Iii, 2010; Love & Roper, 2015; Roberts, Liu, & Hazard, 2005; Truss, 2003).

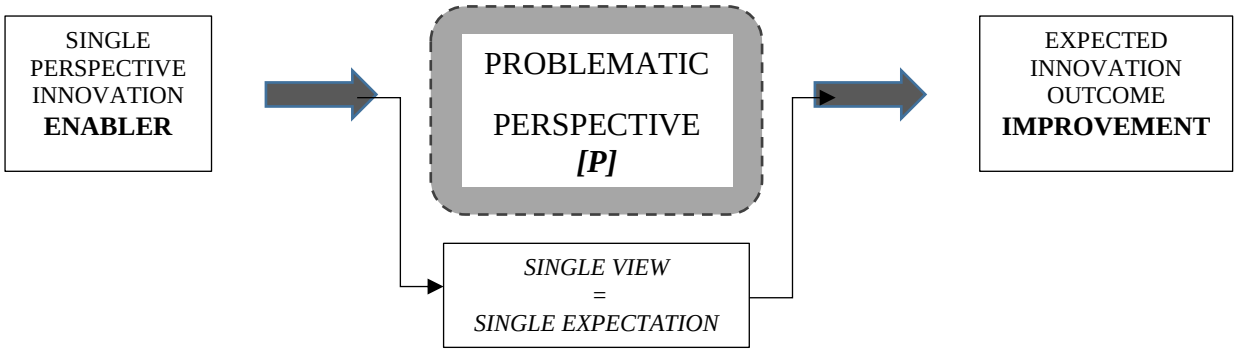
As such, innovation in a healthcare setting demands a move beyond the traditional or perhaps myopic view of innovation in a generalist business arena, and often seen in mainstream literature (Fellnhofer, 2018; Mohammad & Quoquab, 2017; Mohelska & Sokolova, 2017; Rahko, 2017; Santos, Navarro, & Kaszowska, 2017). This point of view tends to focus on innovation as being "*the conversion of a new idea into revenues and profits*" (Lafley & Charan, 2008, p. 21). Instead, when defining innovation in healthcare, there may be justification around embracing a broader definition of innovation. Such terms include efficiency, quality, and affordability (World Health Organisation, 2017). Wherein, de-

emphasises the monetary gains to be made and refocuses on innovation from a social perspective. The World Health Organization (WHO) explains that, innovation in healthcare needs to bring about new or improved health policies, systems, products, technologies, services and delivery methods. Both Kimble and Rashmad, (2017) and (Barlow, 2016) derive similar conclusion, whereby, in this context, health care systems strive to offer improved diagnosis, treatment, prevention and thus, ultimately better access to healthcare for all.

From an innovative point of view therefore, it is relatively straightforward to explain why structured decision making in an innovative healthcare setting becomes important, and why the development of a deliberate strategy is particularly barrier laden and difficult (Fascia, M., Sanderson, M., Tan, H., & Fascia, S. 2019). Examining these barriers, Herzlinger (2006) highlights three main types of health care innovation and the six forces (problematic issues) which affect them. Thus, we can relate these directly to a knowledge transfer paradigm of the same or similar context.

Herzlinger notes transient problems with delivery (*how patients buy and use healthcare*), technology use (*utilised to create new products and treatments*) and business models (*seeking to integrate healthcare organisations and activities*). Running in parallel to these three areas of multiplicity, there are additional issues, which can arise. Notably, stakeholders, funding, governmental policy, introduction of new technology, expectations of healthcare service users and unsurprisingly, the necessity of accountability.

FIGURE 1 – INNOVATION AS A SINGULAR ENABLER



As we can see from Figure 1, innovation in this context, as a singular enabler, is limited when used as leverage for improvement or innovation, as any development would be limited to a single perspective or expected outcome. Thus, to gain value, it may be more appropriate if an agent could establish a real time state of validity for any value expectation(Caccia-Bava, Guimaraes, & Guimaraes, 2013; Chatzoudes, Chatzoglou, & Vraimaki, 2015; Gagnon et al., 2014; Prasarnphanich, Janz, & Patel, 2016; Rouch et al., 2015) , thus, devolve both predict and precept notions of value accountability as a reality. That is, an internal locus or state of belief of either knowledge value or precipitation which can directly or indirectly relate to an innovation outcome and equal value emphasis. Whereby, all iterations of probability relating to a decision making knowledge transfer dilemma remain as valid, only if, they are logical along a constant frame of reality from an actor's perspective of useful innovation.

Formalisation of a position such as this, for example in a healthcare environment, allows principles of innovation to become evident as conditional interpretations of process outcome, importantly, still in the context of surrounding decision making protocols and knowledge transfer mechanisms (Argote & Fahrenkopf, 2016; Boyd, Ragsdell, Oppenheim, & Martins, 2007; Goyette, Cassivi, Courchesne, & Elia, 2014; Song, Zhu, & Rundquist, 2015; Zhang & Jiang, 2015). Thus, exchanges to practical and recognisable environments may now use innovation as a leverage mechanism or driving force for any successful outcome.

Subsequently, we can then relate interpretation within an aperture of reality and change, as this allows for the formation of informal axiomatic theories of belief based on interpretational realism (Godel, 1932; Bull & Krister 1984), and therefore, decisions remain perpetual or dynamic within the knowledge exchange/belief framework.

However, for this position to become valuable, it is only by analysing the somewhat complex processes at work within a Healthcare environment, such as daily working practices, that useful identification of normative and appropriate interaction between the perceptual or dynamic decision making process emerges (Bansemir, Neyer, & Möslein, 2012; Moncaster et al., 2010; Murdock, Shariff, & Wilding, 2013; Swaroop et al., 2014). This perspective is a result of knowledge exchanges and decisions between practitioners during the knowledge transfer scenario, importantly, which can easily be identified as useful or have value for the organisation (Anghelcev, Chung, Sar, & Duff, 2015; Chyi Lee & Yang, 2000; Hutzschenreuter & Horstkotte, 2010; Roy & Sarkar, 2016; Scaringella, 2016). Any analogous scrutiny linked to innovation at this point is reflective of egoistic formations of a singular reality from a knowledge transfer practitioner's perception. Therefore, identify what can be interpreted as a form of cautious belief of an experience (Rotaru et al., 2014), rather than directly relative to the outcome of the knowledge transfer scenario taking place. That is, interpretation continues to remain analogous to the knowledge transfer practitioner's experiential accounts of knowledge at any point in the transfer. However, from an innovation point of view, this situation would be unable to validate the putative value of knowledge, at any single reference point relative to any agreed outcome or value.

At this juncture, we can understand how the examination of knowledge taxonomy and the decisions related to effective outcome would reveal the complex intertwining with necessary communication scenarios needed within a dualistic frame of reference (Kranjec, 2005). Whereby, any argument contrary to the expected outcome of the innovation would become

invalid at any procedure or process point. If we accept this posit as knowledge that is independent of all particular experiences, then it becomes important to understand the significance of experiential reasoning behind this interpretive position of knowledge before it is transferred (Burbach, Barnason, & Hertzog, 2015; Edmondson & Pearce, 2007; Groves, Vance, & Choi, 2011; McCord, Houseworth, & Michaelsen, 2015; Rae, 2012). Thus, it remains unsurprising why interpretive positioning becomes incorrectly associated with problems linked to the context of the knowledge itself.

Authors such as (Dinur, 2011; Henriques, 2014; Huang, Ling, Yang, & Zhao, 2010; Littrell, 2013) explain that since knowledge is a subjective perspective of an individual's experience, any assimilated outcome or perspective must also be experiential and subjective. Whereby, alternative views assume an interpretive congruence as an explanatory position, and nothing more. This view in itself becomes understandable if you also consider interpretation of knowledge from the perspective of managerial expectation of the same innovation project within the organisation (J. Barnett, Vasileiou, Djemil, Brooks, & Young, 2011; L. Barnett & Carter, 2015; Storey & Barnett, 2000). A cumulative viewpoint therefore allows an individual's past experiences of the organisation to be related to 'meaningful' knowledge from the organisations point of view (Fascia et al. 2019). As such, experiences can contribute to the retaining of knowledge, and resources, which contribute to the current position of understanding and underpins aspects of competitiveness.

Relating this position to value in a Healthcare Management context (White & Cicmil, 2016, Jehn, De Wit, Barreto, & Rink, 2015) reflect on the different beliefs asymmetries to which practitioners, as human beings, hold in two very distinct ways. These are basic and non-basic. (Lambek & American Mathematical Society., 2009). Thus, in this reality, any revision of proposition would result from the relationship between the two axioms, however, could not be interpreted as a defining measurement of value, only a differential of perspective.

Problematic framework

We could now argue that this is a natural event, since the practitioners view of knowledge is subjective and assumes any possibly relevant mental evaluative states, relative to the effectiveness of decision, innovation or outcome, are in effect, experiential (Kranjec, 2005). Therefore, examination of an overriding epistemic principle would be required as a baseline for successful critique or measurement. We can therefore establish, or at least infer, why plausible extensions and reciprocal elements of classical belief revision theory may indeed be useful when underpinning strategic outcomes, particularly within complex association of outcomes such as a pressurised environment. Further, it is easy to understand why this simplistic view could be appealing and offer a natural answer for creation, expectation and definition of planned outcomes.

Consequently, simplification of context or category of meaning, possibilities and necessities also becomes conceivable, wherein, plausibility tasks or probabilistic events can become graded measures based on the same reality model. However, this baseline would not relate to both business and personal frames of existence simultaneously, (Kelley & Nahser, 2014; Narasimhan, Bhaskar, & Prakhya, 2010; O'Donohue & Nelson, 2014; Thornhill, 2005), since exchanged knowledge from this perspective can derive only from experience.

Nevertheless, as a barrier to effective innovation strategy, this now becomes a dichotomous proposition, since knowledge does not exist as an independent entity, which can be measured, transferred and evaluated, such as information surrounding any material object might be. Thus, the positioning is unsustainable since this position suggests that an unknown subject or phenomena, within a normal sphere of reality, cannot be transferred as knowledge, since it does not yet exist as an independent entity. That is to say, it would be impossible to transfer knowledge as underpinning value on the basis that experiential reasoning, for example,

surrounding the decisions or expectations of an innovation strategy, determines the validity of the knowledge content.

Structure for Interpretation

If we therefore assume the complex position of knowledge from a healthcare perspective previously discussed, is the universal norm within generalist business management theory (White & Cicmil, 2016), then one could legitimately ask, if the existence of knowledge that in itself depends on the interpretation of a foundational normality is true. Wherein, does the relationship of belief under this premise (Gardenfors, 1986; Narasimhan et al., 2010; Sokolowski, 1992) result from epistemic incongruence by assuming it is either connected or unconnected to the propositional outcome. If this were a collective equilibrium, covering every transfer scenario, then, all knowledge must derive from a consequence of foundational ethics (Depoe, 2007; Glynn, 2013; Klein, 2009), which themselves cannot be refuted by accepted moral norms.

This situation is perplexing to say the least and suggests that knowledge of the real world, particularly in a business context, is fallible and multifariously theory laden and allows several options when revising theory with a similar proposition. Whereby, a willingness to accept presuppositions which is independent of any evidence. That is to say, there is no natural mechanism, which can allow interpretation of variations within innovative knowledge based developments. Interpretation remains elusive because it would be difficult to underpin boundaries and elements of successful intuition based on predicts of classical belief revision theory, but, at the same time, intercede a multi-agent point of view as valid events within a reality framework from which to deliberate.

Positioning clearly escalates the role and significance of validity (Michael Fascia, 2015; M. Fascia & Brodie, 2017) within recognisable knowledge transfer arenas, since it allows for a

foundation of significance to dominate any propositional inference related to an agreed outcome, thus definition of what would amount to a verifiable innovation.

Whereby, it this central locus, which becomes the key for knowledge interpretation, as it provides a valid frame of reference for both the initiator of the knowledge and the observer of the outcome. Importantly, an establishment of simplistic context or category of meaning now allow us to inaugurate boundaries of possibilities and necessities, both of which would otherwise have remained an undetectable or overly complex endeavour.

To assist with this complex interaction, key elements of emphasis around knowledge value can be drawn from a POPC (Philosophical, Organisation, Psychological, Cultural) lens of interpretation (Fascia, 2015), since this approach allows a multi view perspective to interweave between individual and group interpretations within a linear or relativistic frame of reference (Fascia, 2016). This approach allows us to consider that form and location of any knowledge, the indication of knowledge-sharing capability, the relationship between the source and the recipient and the broader environment in which the transfer occurs, are all contributing factors in assessing success (Fascia, 2015).

This view now gives the observer a similar frame of reference to the participating agents, whereby, any revision of a proposition within the reference framework allows interpretation from a predicate. Hence, the standpoint satisfies any necessary axioms, both by contradiction and revision, and at the same time, considers facets of congruence and consistency within the agent's interpretation of the transfer scenario.

Parallelism

From the previous discussion , we can see that the central locus of logical interpretation centres around foundational realism (Depoe, 2007; Glynn, 2013; Klein, 2009). As such, foundational realism as a dimensioning factor for successful knowledge transfer emerges as somewhat

important, and perhaps critical for the identification or interpretation surrounding the use of knowledge within a particular environment such as Healthcare. Certainly if predicated by the wish to achieve and measure positive or valuable outcomes Although generalisability of this positioning could, on the surface at least, appear rather simplistic, and contemporary theory around these assumptions differs in many respects.

This is reiterated in recent work by Rotaru, Churilov, & Flitman, 2014 and Donate & Guadamillas, 2015, both sets of authors suggest that problems with knowledge transfer in a Healthcare Management Context remain prevalent, since in the main, knowledge is difficult to define, can be ambiguous, unspecific and a dynamic phenomenon. It remains difficult therefore, without the use of a logical structure, to deduce which assemblies of knowledge understanding support or interrupt emerging propositions, and which are simply a by-product from the interaction of the various actors involved in the transfer process (Rotaru, Churilov, & Flitman, 2014). Considering the previous text, it is perhaps understandable why many key authors focus on ways to comprehend and ultimately enhance this knowledge understanding in a business context, as it would appear to be a key factor in understanding useful attributes

However, in doing so, this view would ultimately seek to examine various propositions using a single point of view, principally from occidental foci, which in itself is derived from historical concepts of Objectivism (Green, 2012). Therefore, we may consider this myopic interpretive stance as something, which contributes to the incredulity surrounding knowledge and is part of a non-existing logical context when deriving a reality (Stalnaker, 1968; Spohn ,1988). Consequently, the interpretive praxis for a specific knowledge schema could be debated at length as it would appear that there is no single interpretation of something, which could be interpreted as normal knowledge, even within the realms of contemporary thinking around critical realism (Bull & Krister 1984; Rotaru et al., 2014).

Ultimately, when considering or determining knowledge as a useful element within a healthcare organisation, it now seem logical to consider how a position of identifiable knowledge fits within an agent's interpretive overview of formalised knowledge and what is interpreted as useful in that context. That is, we need to consider the reality of how and why an observer of a knowledge transfer scenario would consider sets of closely related realities with differing frames of reference Boutilier (1995). This would result in a formal structure of the agent's belief and the ordering of epistemic propositions (Arlo-Costa & Parikh ,2005).

We can now accept, at least from a healthcare business perspective (or context), when conceiving knowledge as a faculty for distinguishing between truth and falsity of innovation success, any experiential decision would lack the cognitive status traditionally ascribed as reality, and therefore would be considered a priori false. Accordingly, from the standpoint of knowledge value, it is important therefore to consider the evidence of this knowledge when deciding if it is true or not when related to innovation. As such, does the knowledge itself need to be better understood before it can be successfully transferred or is it simply empirical cogency, which has been transferred and innovation is a by-product of the transfer. Clearly, from a business context, this involves philosophical support by paradigms and archetypes overarching business activity and relating to innovation success, but thereby giving knowledge 'value' by this premise alone and not as a justification of any other epistemic principle.

Measurable Impost-Using a Doxastic structure

If we are now able to consider this duality of proposition as a single entity by using both the agent and observers reality, that is to say, to what extent can alignment be validated, in a way that supports corrective knowledge transfer axioms (Jiang, Colakoglu, Lepak, Blasi, & Kruse, 2015), then it becomes a very useful perspective indeed. As such, it this central locus, which

becomes the key for interpretation of a knowledge innovation singularity, as it provides a valid frame of reference for both the initiator of the knowledge and the observer of the outcome. This is because both positional inferences presuppose an assumption, in that, they both require interpretive associations from the actors to legitimise any validity regarding knowledge, and thus, inextricably link knowledge and knowledge transfer as the same cognitive process (Dinur, 2011; Jensen, 2010; Thornhill, 2005)

This then allows differing actions to align to differing options or operators of necessity, and not simply interpretations of fallible and defeasible evidence as experiential/nonexperiential. This is an important position to adopt, as we can now approach epistemological issues regarding the definition of knowledge and knowledge value from a pragmatic centre of innovation and relate this to a degree of success from whatever perspective suits the stakeholder(s). However, we first need to be able to adopt an axiomatic (Alberto Benítez, 2013; Diaconescu, Metcalfe, & Schnüriger, 2016; Leitgeb & Segerberg, 2007; Liau, 2005) starting point and epistemic principles from which to define knowledge from these multiple perspectives.

The benefit from this interpretation is clear, that is, if we endorse this axiomatic positioning, then we can endorse both hermeneutics (Charalambous & Kaite, 2013; Smebye, Kirkevold, & Engedal, 2012; Stolper, Molewijk, & Widdershoven, 2015) and foundationalism (Coliva, 2010; Laudo Castillo, 2011; Rosenberger, 2017) as a generality norm or singularity for contextual interpretation of knowledge. That is, interpretative positioning becomes dynamic, whereby, the represented states of external reality from the observer's perspective assume the agents position as not part of the observer's reality frame of reference of subsequent knowledge definition. Whereby, agent's dispositions do not align to the observer's beliefs or expectations of representative value and as a result, actions or change from the agents internal locus, cannot affect any part of any external reality. Thus, knowledge and value become the

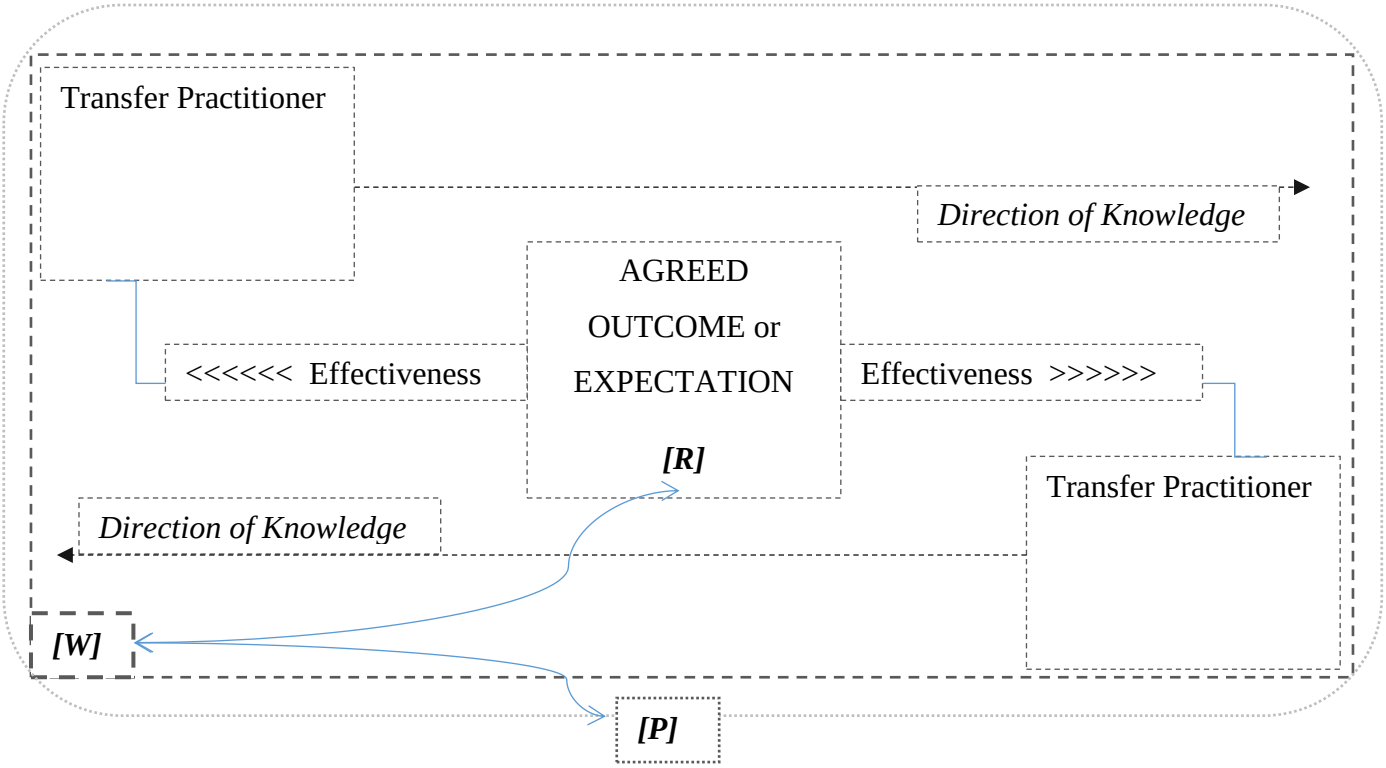
primary for a singular definition. In this case, we can draw from definitions by both Feenstra, 1988 and Ahmad & Daghfous, 2010, whereby, knowledge must consist, at least to a large extent, in a clarification of value which does not consist in definition alone, and therefore, must possess a systemic value for clarification using an agreed/ understood epistemic principle.

As such, knowledge from this multivariate perspective exists as a combined state, but our awareness of it remains unclear, as interpretation is singular in focus and suffers from borrowed interpretations covering many disciplines. In this sense, we can now understand why, although numerous in number, most theoretical interpretations belie the potentials inherent in focused research of combination effectiveness. Wherein, most attempts to categorise a temporal state for knowledge end up as a lateral presumption, which, by its very nature, attempts to coexist with cognitive interpretations of knowledge and thus are counter intuitive. Therefore, it is easy to see why interpretations inevitably vary, are very broad and where non-specific boundaries and parameters pillory most, if not all, indices of symptomatic validity.

To fully debate, this point would be extensive to say the least, however in the caveat of a healthcare in a business or innovation context, we can say that a philosophically identifiable position of knowledge is understood as phenomenon identifiable through interpretation. However, as a caveat, a phenomenon which may be experienced as a temporal dimension, linked to an agreed outcome, but has to be justified as a true belief before it can be termed valuable. Therefore, we can determine decision-making processes in this regards as a sequence or ‘set’ of logical consequence (conjunction and disjunction) of each categorical knowledge transfer constituent, linked to innovation.

Thus, if we underpin conditional doxastic structure as fundamental to dynamic innovation based on knowledge transfer structure efficacy, we can deduce that non-beneficial decisions, related to an agreed outcome, or states of information in an investigation, become somewhat redundant within this reality frame. Whereby, epistemically distinguishable facets assume irrelevant features, wherein, ordinal tasks and plausibility evaluations remain evident, but contradicted to the original expected outcome.

FIGURE 2: EFFECTIVE DESCISION PROTOCOL



In this way, from any perspective point within the frame of reference ***[P],*** we can derive an assembled innovative set of effective decision protocols **(*W,R*)** which can be drawn from a conventional Kripke frame (Diaconescu et al., 2016; Fernández-Duque & Joosten, 2014; Perkov, 2014) or more commonly referred to as *(modal frame) (Jepson, Richards, & Knill).* As such, ***[W]*** is now a set and ***[R]*** is subset of the same Cartesian product (Hazelrigg, 2012; Kremer, 2016) but linked to ***[P].***

Now, we can easily relate this perspective to elements of innovation and effectiveness of knowledge transfer as a *dyadic relationship* discussed by *(Hazelrigg, 2012; Kremer, 2016) and also perspectives from* (Carnovale & Yeniyurt, 2015; Caro, 2008; Jehn et al., 2015; Jensen, 2010). This can be drawn together as an analytical lens within a knowledge based environment (Jensen, 2010; Lakpetch & Lorsuwannarat, 2012; Pietromonaco, Uchino, & Schetter, 2013). Therefore, assume the operation of expectation is concurrent with, and only with, the agent's reality frame of reference at a single point of the decision-making process. Wherein, any unrelated point reflective of any other point becomes non-conventional valuation and therefore has the possibility to reduce to classical truth.

As such, any new knowledge, related specifically to innovation via a cumulative decision-making process (FIGURE 2), and explicitly within an agent's reality frame, becomes an expansion of set ***[W]***. *Further*, has the potential to develop, but only as a composite understanding of all available knowledge from the agent's frame of reference (reality). In that, the axioms are valid and the rules for interpretation preserve validity of any value related to the know knowledge. Whereby, we can draw differentiated conclusion from either modal result, resulting in triangulation of individualised modality.

Whereby, we can now observe legitimate mechanisms, which establish a belief version of understanding, and show how this positioning translates to numerous abstract hypothesises for revision in a knowledge context in an innovation timeline.

From the perspective of a recognisable domain, this allows framing of reality for any agent and observer (Bennett, 2003; Bonanno, 2007a, 2007b; Cholvy & Hunter, 2003) in the context of either innovation or the knowledge needed to initiate the idea. Whereby, an innovation agent who believes it is possible to reason and represent aspects of beliefs regarding reality from the frame of reference of the observer. Consequently, we can now place propositions of

innovation in this discussion within a relative frame of reference and link belief, knowledge and probability, to assume an elemental obligation (Dale & Stacey, 2016; Newlands, 2013; Waibel, Vo, Duchnowski, & Manke, 1996), whereby, decisions become valid based on the appropriate actions of an agent. That is to say, open conflict within an agent's frame of reference may be determined by forming intermediate and multi-state belief revisions of the same or similar premise (Marquis & Huston, 2011; Yankova & Köhler, 2015) thus, predicate any innovative resolution. Identification of this standpoint is fundamental and necessary so as not to coerce the discussion toward simplification of pluralistic innovation (Mosadeghrad, 2014; Prenestini, Lega, & Webb, 2013; Weil, 2003) or develop unnecessarily complex realms around modes of existence.

Effectiveness of the transfer mechanism related to innovation therefore, emerges as changing operations with standard frame correspondences. Interpretation, therefore, becomes a significant premise, since interpretation of this interaction from the agent's perspective could lead to a number of different validity subscriptions. Therefore, logical interpretation of the transfer scenario using a doxastic attitude allows us to recognise versions of experience as elements of knowledge in an agent's interpretation of reality. Appropriately however, predominantly in the region of cooperative problem solving and decision-making with a specific innovative feature or facet.

CONCLUSION

This discussion has focused on outlining and assessment of current and historical knowledge philosophy, theory and positioning, but at the same time, places it within the realms of a business context. In the discussion, we concentrated on a Doxastic attitude and epistemic principle surrounding the use of knowledge in a business context, wherein, we concluded that this combined faced becomes necessary when examining if knowledge is important.

Through reconciliation of foundational and doxastic positions, we explained that we can now view knowledge and knowledge value as a singular construct. Importantly, however, this is characterised through a multitude definition but not as a singular epistemic principle. As such, our discussion explained that to assume any value or relevance to the sender or receiver, the acceptance of the tripartite theory of knowledge, Belief, Truth and Justification (epistemic principle) must also be inferred as a normative of value within the transfer mechanism. Adoption of this positioning in the decision making process allows justification to the premise surrounding the interaction of an epistemic knowledge principle and is now based on a knowledge transfer practitioner's point of view supported by a doxastic presumption. This new perspective can allow the identification of alternative viewpoints to knowledge and knowledge transfer mechanisms to exist simultaneously with innovation trajectories and an assumption of effectiveness can be easily deduced.

From the perspective of mainstream business management within the speciality of healthcare innovation, and specifically relating to underpinning business practices of success and competitive advantage, this flexibility of interpretation becomes a significant advantage to the business or organisation.

REFERENCES

Alberto Benítez, S. (2013). Some marxian and smithian ideas on labor and prices. *Cuadernos de Economía, 32*(60), 369-393.

Anghelcev, G., Chung, M.-Y., Sar, S., & Duff, B.R.L. (2015). A zmet-based analysis of perceptions of climate change among young south koreans. *Journal of Social Marketing, 5*(1), 56.

Argote, L., & Fahrenkopf, E. (2016). Knowledge transfer in organizations: The roles of members, tasks, tools, and networks. *Organizational Behavior and Human Decision Processes, 136*, 146-159. doi: 10.1016/j.obhdp.2016.08.003

Bansemir, B., Neyer, A.-K., & Möslein, K.M. (2012). Knowledge exchange in intra-organizational innovation communities: The role of cognitive and affective states. *Business Research, 5*(1), 43-58,45.

Barlow, J. (2016). Disruptive and frugal innovation in healthcare. We think we need it — but what is it? *Managing Innovation in Healthcare* (pp. 227-291): WORLD SCIENTIFIC (EUROPE).

Barnett, J., Vasileiou, K., Djemil, F., Brooks, L., & Young, T. (2011). Understanding innovators' experiences of barriers and facilitators in implementation and diffusion of healthcare service innovations: A qualitative study. *BMC Health Services Research, 11*, 342. doi: http://dx.doi.org/10.1186/1472-6963-11-342

Barnett, L., & Carter, E. (2015, 2015/11//

Nov 2015). *Culture and knowledge management: From research examining intercultural interactions in hotels in thailand*, Kidmore End.

Bhayani, A. (2015). The role of university-industry collaboration in the development of a knowledge economy: Case study of universities in the united arab emirates. *World Review of Science, Technology and Sustainable Development, 12*(2), 173-191. doi: 10.1504/WRSTSD.2015.073839

Boyd, J., Ragsdell, G., Oppenheim, C., & Martins, B. (2007). *Knowledge transfer mechanisms: A case study from manufacturing*.

Burbach, B.E., Barnason, S., & Hertzog, M. (2015). Preferred thinking style, symptom recognition, and response by nursing students during simulation. *Western Journal of Nursing Research, 37*(12), 1563-1580. doi: 10.1177/0193945914539739

Caccia-Bava, M.C., Guimaraes, V.C.K., & Guimaraes, T. (2013). Important factors for success in hospital bpr project phases. *International Journal of Health Care Quality Assurance, 26*(8), 729-745. doi: 10.1108/IJHCQA-01-2012-0007

Carnovale, S., & Yeniyurt, S. (2015). The role of ego network structure in facilitating ego network innovations. *Journal of Supply Chain Management, 51*(2), 22-46.

Caro, D.H.J. (2008). Deconstructing symbiotic dyadic e-health networks: Transnational and transgenic perspectives. *International Journal of Information Management, 28*(2), 94-101. doi: 10.1016/j.ijinfomgt.2007.12.002

Charalambous, A., & Kaite, C. (2013). Undergraduate nursing students caring for cancer patients: Hermeneutic phenomenological insights of their experiences. *BMC Health Services Research, 13*, 63. doi: http://dx.doi.org/10.1186/1472-6963-13-63

Chatzoudes, D., Chatzoglou, P., & Vraimaki, E. (2015). The central role of knowledge management in business operations. *Business Process Management Journal, 21*(5), 1117-1139.

Chien Hsing, W., Shu-Chen, K., & Hsin-Hui, L. (2013). Acceptance of enterprise blog for service industry. *Internet Research, 23*(3), 260-297.

Christina Beach, T. (2007). Effective management of technology implementation. *Journal of Healthcare Management, 52*(4), 216-219.

Chyi Lee, C., & Yang, J. (2000). Knowledge value chain. *Journal of Management Development, 19*(9), 783-794. doi: 10.1108/02621710010378228

Coliva, A. (2010). *Moore and wittgenstein: Scepticism, certainty and common sense*. Basingstoke: Palgrave.

De Marco, G., & Romaniello, M. (2011). On the dynamics of coalition structure beliefs *Handbook of optimization theory: Decision analysis and application* (pp. 237-258): Nova Science Publishers, Inc.

Depoe, J.M. (2007). In defense of classical foundationalism: A critical evaluation of plantinga's argument that classical foundationalism is self-refuting. *South African Journal of Philosophy, 26*(3), 245-251.

Diaconescu, D., Metcalfe, G., & Schnüriger, L. (2016). *Axiomatizing a real-valued modal logic*.

Dinur, A. (2011). Tacit knowledge taxonomy and transfer: Case-based research. *Journal of Behavioral and Applied Management, 12*(3), 246-281.

Edmondson, R., & Pearce, J. (2007). The practice of health care: Wisdom as a model. *Medicine, Health Care and Philosophy, 10*(3), 233-244. doi: 10.1007/s11019-006-9033-3

Fascia, M. (2015). Understanding dimensioning of knowledge transfer perspectives. *Management Studies and Economic Systems, 2*(2), 145-156. doi: 10.12816/0019399

Fascia, M., & Brodie, J. (2017). Structural barriers to implementing open innovation in healthcare. *British Journal of Health Care Management, 23*(7), 338-343. doi: 10.12968/bjhc.2017.23.7.338

Fascia, M., Sanderson, M., Tan, H., & Fascia, S. (2019). Theoretical Development: Specialism, Achievement, Coordination, (SAC) model – Kantian Perspective. *Journal of Strategy, Operations & Economics, 5(5),* 18

Fellnhofer, K. (2018). Drivers of innovation success in sustainable businesses. *Journal of Cleaner Production, 167,* 1534-1545. doi: 10.1016/j.jclepro.2017.08.197

Fernández-Duque, D., & Joosten, J.J. (2014). *Kripke models of transfinite provability logic*.

Fulop, L. (2012). Leadership, clinician managers and a thing called "hybridity". *Journal of Health Organization and Management, 26*(5), 578-604. doi: http://dx.doi.org/10.1108/14777261211256927

Gagnon, M.P., Ghandour, E.K., Talla, P.K., Simonyan, D., Godin, G., Labrecque, M., . . . Rousseau, M. (2014). Electronic health record acceptance by physicians: Testing an integrated theoretical model. *Journal of Biomedical Informatics, 48*, 17-27. doi: 10.1016/j.jbi.2013.10.010

Gardenfors, P. (1986). Belief revisions and the ramsey test for conditionals. *The Philosophical Review, 95*(1), 81. doi: 10.2307/2185133

Gausdal, A.H., & Nilsen, E.R. (2011). Orchestrating innovative sme networks. The case of "healthinnovation". *Journal of the Knowledge Economy, 2*(4), 586-600. doi: 10.1007/s13132-011-0070-7

Genaidy, A.M., Sequeira, R., Rinder, M.M., & A-Rehim, A.D. (2009). Determinants of business sustainability: An ergonomics perspective. *Ergonomics, 52*(3), 273-301. doi: 10.1080/00140130802376042

Ginsborg, H. (2006). Empirical concepts and the content of experience. *European Journal of Philosophy, 14*(3), 349-372. doi: 10.1111/j.1468-0378.2006.00230.x

Glynn, L. (2013). Causal foundationalism, physical causation, and difference-making. *Synthese, 190*(6), 1017-1037. doi: 10.1007/s11229-011-0058-7

Goyette, S., Cassivi, L., Courchesne, M., & Elia, E. (2014). Knowledge transfer mechanisms in an erp post-implementation stage. In J. Varajao, M. Cunha, N. BjornAndersen, R. Turner, D. Wijesekera, R. Martinho & R. Rijo (Eds.), *Centeris 2014 - conference on enterprise information systems / projman 2014 - international conference on project management / hcist 2014 - international conference on health and social care information systems and technologies* (Vol. 16, pp. 430-439).

Groves, K., Vance, C., & Choi, D. (2011). Examining entrepreneurial cognition: An occupational analysis of balanced linear and nonlinear thinking and entrepreneurship success. *Journal of Small Business Management, 49*(3), 438-466.

Hazelrigg, L. (2012) Developments of analytical logic and dialectical logic with regard to the study of process dynamics. *Vol. 30. Current Perspectives in Social Theory* (pp. 61-95).

Henriques, G. (2014). In search of collective experience and meaning: A transcendental phenomenological methodology for organizational research. *Human Studies, 37*(4), 451-468. doi: 10.1007/s10746-014-9332-2

Huang, J., Ling, J., Yang, J., & Zhao, Q. (2010). Key success factors in knowledge transfer during m&a in traditional industries: An empirical study. *Journal of International Technology and Information Management, 19*(4), 109-IV.

Hutzschenreuter, T., & Horstkotte, J. (2010). Knowledge transfer to partners: A firm level perspective. *Journal of Knowledge Management, 14*(3), 428-448. doi: http://dx.doi.org/10.1108/13673271011050148

Jehn, K.A., De Wit, F.R.C., Barreto, M., & Rink, F. (2015). Task conflict asymmetries: Effects on expectations and performance. *International Journal of Conflict Management, 26*(2), 172.

Jensen, K.W. (2010). Relational effects on knowledge integration: The differential effects on search and transfer. *Knowledge Management Research & Practice, 8*(2), 146-160. doi: http://dx.doi.org/10.1057/kmrp.2010.4

Jepson, A., Richards, W., & Knill, D.C. Modal structure and reliable inference *Perception as Bayesian Inference* (pp. 63-92): Cambridge University Press.

Jiang, Y., Colakoglu, S., Lepak, D.P., Blasi, J.R., & Kruse, D.L. (2015). Involvement work systems and operational effectiveness: Exploring the moderating effect of national power distance. *Journal of International Business Studies, 46*(3), 332-354. doi: http://dx.doi.org/10.1057/jibs.2014.61

Kelley, S., & Nahser, R. (2014). Developing sustainable strategies: Foundations, method, and pedagogy. *Journal of Business Ethics, 123*(4), 631-644. doi: 10.1177/1052562908323192 . http://jme.sagepub.com/cgi/doi/10.1177/1052562908323192 .

http://dx.doi.org/10.1007/s10551-013-2014-6

King, K.P., & Foley Iii, J.J. (2010). 21st century learning opportunities for sme success: Maximizing technology tools and lifelong learning for innovation and impact *E-business issues, challenges and opportunities for smes: Driving competitiveness* (pp. 65-86): IGI Global.

Klein, R.T. (2009). What kind of classical foundationalism has plantinga refuted? *South African Journal of Philosophy, 28*(3), 304-311.

Kremer, P. (2016). Matching topological and frame products of modal logics. *Studia Logica, 104*(3), 487-502. doi: 10.1007/s11225-015-9648-6

Lakpetch, P., & Lorsuwannarat, T. (2012). Knowledge transfer effectiveness of university-industry alliances. *International Journal of Organizational Analysis, 20*(2), 128-186. doi: 10.1108/19348831211227819

Lambek, J., & American Mathematical Society. (2009). *Lectures on rings and modules*. Providence, RI: AMS Chelsea Pub.

Laudo Castillo, X. (2011). The hypothesis of postmodern pedagogy. Education, truth and relativism. *Teoria de la Educacion, 23*(2), 45-68.

Lee, A., Moy, L., Kruck, S.E., & Rabang, J. (2014). The doctor is in, but is academia? Re-tooling it education for a new era in healthcare. *Journal of Information Systems Education, 25*(4), 275-281.

Leitgeb, H., & Segerberg, K. (2007). Dynamic doxastic logic: Why, how, and where to? *Synthese, 155*(2), 167-190. doi: 10.1007/s11229-006-9143-8

Liau, C.J. (2005). A modal logic framework for multi-agent belief fusion. *ACM Transactions on Computational Logic, 6*(1), 124-174. doi: 10.1145/1042038.1042043

Littrell, R.F. (2013). Explicit leader behaviour. *The Journal of Management Development, 32*(6), 567-605. doi: http://dx.doi.org/10.1108/JMD-04-2013-0053

Love, J.H., & Roper, S. (2015). Sme innovation, exporting and growth: A review of existing evidence. *International Small Business Journal, 33*(1), 28-48. doi: 10.1177/0266242614550190

Luke, B., Verreynne, M.-L., & Kearins, K. (2010). Innovative and entrepreneurial activity in the public sector: The changing face of public sector institutions. *Innovation : Management, Policy & Practice, 12*(2), 138-153. doi: 10.5465/AMR.1991.4279496

Machery, E. (2007). Concept empiricism: A methodological critique. *Cognition, 104*(1), 19-46. doi: 10.1016/j.cognition.2006.05.002

McCord, M., Houseworth, M., & Michaelsen, L.K. (2015). The integrative business experience: Real choices and real consequences create real thinking. *Decision Sciences Journal of Innovative Education, 13*(3), 411-429. doi: 10.1111/dsji.12070

McLaughlin, D.B., & Militello, J.P. (2015). Finding the path to innovation. *Journal of Healthcare Management, 60*(4), 243-245.

Meisel, Z.F., Gollust, S.E., & Grande, D. (2016). Translating research for health policy decisions: Is it time for researchers to join social media? *Acad Med.* doi: 10.1097/ACM.0000000000001182

Mohammad, J., & Quoquab, F. (2017). Innovation ability of business schools to introduce new academic programs. *International Journal of Innovation and Learning, 21*(2), 178-222. doi: 10.1504/IJIL.2017.081938

Mohelska, H., & Sokolova, M. (2017). Innovative culture of the organization and its role in the concept of corporate social responsibility. Czech republic case study. *Amfiteatru Economic, 19*(46), 853-865.

Moncaster, A., Hinds, D., Cruickshank, H., Guthrie, P.M., Crishna, N., Baker, K., . . . Jowitt, P.W. (2010). Knowledge exchange between academia and industry. *Proceedings of the Institution of Civil Engineers-Engineering Sustainability, 163*(3), 167-174. doi: 10.1680/ensu.2010.163.3.167

Moyal-Sharrock, D. (2013). Realism, but not empiricism: Wittgenstein versus searle *A wittgensteinian perspective on the use of conceptual analysis in psychology* (pp. 153-171): Palgrave Macmillan.

Murdock, A., Shariff, R., & Wilding, K. (2013). Knowledge exchange between academia and the third sector. *Evidence & Policy, 9*(3), 419-430. doi: 10.1332/174426413x671086

Narasimhan, N., Bhaskar, K., & Prakhya, S. (2010). Existential beliefs and values. *Journal of Business Ethics, 96*(3), 369-382. doi: http://dx.doi.org/10.1007/s10551-010-0472-7

O'Donohue, W., & Nelson, L. (2014). Alienation. *International Journal of Organizational Analysis, 22*(3), 301.

Oborn, E., Barrett, M., & Racko, G. (2013). Knowledge translation in healthcare. *Journal of Health Organization and Management, 27*(4), 412-431.

Perkov, T. (2014) A generalization of modal frame definability. *Vol. 8607 LNCS* (pp. 142-153): Springer Verlag.

Pietromonaco, P.R., Uchino, B., & Schetter, C.D. (2013). Close relationship processes and health: Implications of attachment theory for health and disease. *Health Psychology, 32*(5), 499-513. doi: 10.1037/a0029349

Prasarnphanich, P., Janz, B.D., & Patel, J. (2016). Towards a better understanding of system analysts' tacit knowledge. *Information Technology & People, 29*(1), 69-98.

Rae, D. (2012). Action learning in new creative ventures. *International Journal of Entrepreneurial Behaviour & Research, 18*(5), 603-623.

Rahko, J. (2017). Knowledge spillovers through inventor mobility: The effect on firm-level patenting. *Journal of Technology Transfer, 42*(3), 585-614. doi: 10.1007/s10961-016-9494-3

Roberts, M.L., Liu, R.R., & Hazard, K. (2005). Strategy, technology and organisational alignment: Key components of crm success. *Journal of Database Marketing & Customer Strategy Management, 12*(4), 315-326.

Rosenberger, R. (2017). Notes on a nonfoundational phenomenology of technology. *Foundations of Science, 22*(3), 471-494. doi: 10.1007/s10699-015-9480-5

Rouch, J.D., Wagner, J.P., Scott, A., Sullins, V.F., Chen, D.C., Deugarte, D.A., . . . Lee, S.L. (2015). Innovation in pediatric surgical education for general surgery residents: A mobile web resource. *Journal of Surgical Education, 72*(6), 1190-1194. doi: 10.1016/j.jsurg.2015.06.025

Roy, R., & Sarkar, M. (2016). Knowledge, firm boundaries, and innovation: Mitigating the incumbent's curse during radical technological change. *Strategic Management Journal, 37*(5), 835-854. doi: 10.1002/smj.2357

Santos, J.L., Navarro, T.M., & Kaszowska, J.A. (2017). Entrepreneurship and innovation in the middle east: An analysis for egypt, turkey, iran, jordan, and uae *Entrepreneurship: Concepts, methodologies, tools, and applications* (Vol. 4-4, pp. 1666-1687): IGI Global.

Savory, C., & Fortune, J. (2014). An emergent sectoral innovation system for healthcare services. *The International Journal of Public Sector Management, 27*(6), 512.

Scaringella, L. (2016). Knowledge, knowledge dynamics, and innovation: Exploration of the internationalization of a multinational corporation. *European Journal of Innovation Management, 19*(3), 337-361. doi: 10.1108/EJIM-05-2015-0031

Servaes, J., & Lie, R. (2013). Sustainable social change and communication. *Communication Research Trends, 32*(4), 4-30.

Smebye, K.L., Kirkevold, M., & Engedal, K. (2012). How do persons with dementia participate in decision making related to health and daily care? A multi-case study. *BMC Health Services Research, 12*, 241.

Sokolowski, R. (1992). Husserl and analytic philosophy and husserlian intentionality and nonfoundational realism. *Philosophy and Phenomenological Research, 52*(3), 725-730. doi: 10.2307/2108219

Song, N., Zhu, J., & Rundquist, J. (2015). Knowledge transfer mechanisms and global r&d operations in mncs. *International Journal of Innovation and Technology Management, 12*(2). doi: 10.1142/s021987701550011x

Stetler, K.L., & Magnusson, M. (2015). Exploring the tension between clarity and ambiguity in goal setting for innovation. *Creativity and Innovation Management, 24*(2), 231-246. doi: 10.1111/caim.12102

Stolper, M., Molewijk, B., & Widdershoven, G. (2015). Learning by doing. Training health care professionals to become facilitator of moral case deliberation. *HEC Forum, 27*(1), 47-59. doi: http://dx.doi.org/10.1007/s10730-014-9251-7

Storey, J., & Barnett, E. (2000). Knowledge management initiatives: Learning from failure. *Journal of Knowledge Management, 4*(2), 145-156. doi: 10.1108/13673270010372279

Swaroop, M., Galwankar, S.C., Stawicki, S.P.A., Balakrishnan, J.M., Worlton, T., Tripathi, R.S., . . . Papadimos, T.J. (2014). The 9th annual indus-em 2013 emergency medicine summit, " principles, practices, and patients," a level one international meeting, kerala university of health sciences and jubilee mission medical college and research institute, thrissur, kerala, india, october 23-27, 2013. *Philosophy, Ethics, and Humanities in Medicine, 9*(1). doi: 10.1186/1747-5341-9-8

Tansley, C., Huang, J., & Foster, C. (2013). Identity ambiguity and the promises and practices of hybrid e-hrm project teams. *Journal of Strategic Information Systems, 22*(3), 208-224. doi: 10.1016/j.jsis.2013.01.002

Thornhill, C. (2005). Karl jaspers and theodor w. Adorno: The metaphysics of the human. *History of European Ideas, 31*(1), 61-84. doi: 10.1016/j.histeuroideas.2004.09.002

Truss, C. (2003). Strategic hrm: Enablers and constraints in the nhs. *The International Journal of Public Sector Management, 16*(1), 48-60.

Tuan, H.W. (2008). Investigation of enablers of knowledge transfer in the medical industry. *International Journal of Electronic Healthcare, 4*(2), 132-152.

White, G.R.T., & Cicmil, S. (2016). Knowledge acquisition through process mapping. *International Journal of Productivity and Performance Management, 65*(3), 302-323. doi: 10.1080/14783363.2015.1044892.

Windecker, S., Kolh, P., Alfonso, F., Collet, J.P., Cremer, J., Falk, V., . . . Witkowski, A. (2015). 2014 esc/eacts guidelines on myocardial revascularization. *EuroIntervention, 10*(9), 1024-1094. doi: 10.4244/EIJY14M09-01

Yager, R.R. (2001). Penalizing strategic preference manipulation in multi-agent decision making. *IEEE Transactions on Fuzzy Systems, 9*(3), 393-403. doi: 10.1109/91.928736

Zhang, X., & Jiang, J.Y. (2015). With whom shall i share my knowledge? A recipient perspective of knowledge sharing. *Journal of Knowledge Management, 19*(2), 277.