

# **Human Governance: Bringing the Meaning of Integrity in the Life of Professional Accountants**

by  
Arfah Salleh, PhD, FCPA  
Aziuddin Ahmad, PhD  
Universiti Putra Malaysia

Integrity as a manifestation of ethics and values has been synonymous to the image of the accounting profession. However, corporate events of the last decade have abridged this goodwill so that reputational risk now stands among the risks that the accounting profession faces today. The findings of the International Federation of Accountants (IFAC) 2008 Global Leadership Survey only reaffirm the concern among professional accountants globally of the need to restore stakeholders' confidence of the integrity of the profession and its commitment to serve the public interest. We offer some critical thoughts and responses to this issue through questioning the mould of reality and the lens of seeing the model of the world in order to bring back meaning to the profession. Models work well only when their assumptions represent reality.

## **In Search of a New Meaning – The Reality**

Einstein's advice in solving a problem is to find solutions from a dimension higher than where the problem was created. By truly living to this adage, the quantum physicists' fraternity managed to solve many centuries-old phenomena otherwise unresolved using the laws of classical science following Cartesian-Newtonian's four hundred years thinking tradition. A new world view of reality founded upon the interconnectedness and non-separability between subject and object of the universe was arrived at and Newton's law was discovered to be only an approximation of the actual workings of the universe. This unearthing however did not come by without unexpected challenges. For instance, it was almost inconceivable when entangled atoms that were separated were still found to influence one another despite no longer being in physical contact. The reality of this non-locality and non-causal effect phenomenon became a fundamental grounding for further quantum breakthroughs yet, it remained one that Einstein himself could not comprehend as making sense during his life time.

While the phenomenal contribution by quantum theorists has made its way to the annals of human civilization, there is much that the accounting fraternity can emulate with respect to the approach that the scientists have adopted towards making meaning in life, both of theirs and others. Evidence abounds in scientific documents of the quantum physicists' strong conviction to a higher cause in being meaningful to humankind by questioning the meaning of life itself<sup>1</sup>. What was exceptional was their willingness to let go of legacy to the extent of considering even ideas which appeared radical against the then accepted norm. By the end of the 20<sup>th</sup> Century, earlier defined general scientific tenets had been replaced with a new set of a scientific body of law. The following table summarises some of the fundamentals of today's science.

---

<sup>1</sup> Such as by Schrodinger (1944) in his work titled, "What is life?"

Table 1: Tenets of science

<b>Classical Cartesian/Newtonian (specific case)</b>	<b>Einsteinian Quantum (general theory)</b>
The universe is a collection of objects (objects in the universe can stand alone since 'oneness' or interconnectedness is not the underpinning of the universe)	The universe is a web of relationships (the 'oneness' or interconnectedness of universe is real)
Matter is made up of 'things'	Matter represents bundles of energy in relationship to each other
The world is a clockwork machine and is objective, hence we count only what can be measured	The world is a great thought (presence of consciousness) and is subjective, hence we measure what counts
We understand things by taking them apart (reductionism & fragmentation)	We understand things by <b>looking at the whole</b> (non-reductionism & non-fragmentation)
Knowledge comes in pieces (hence silo-thinking is an accepted norm)	Knowledge is seamless (silo-thinking provides a non-realistic view of the world)
Observer and the observed are separated	Observer cannot be separated from the observed
A phenomenon happens through causal-effect and the following principles apply: <ul style="list-style-type: none"> <li>• linearity</li> <li>• certainty</li> <li>• determinable</li> <li>• either/or</li> <li>• duality: (wrong/right, good/bad)</li> </ul>	A phenomenon is non-causal effect and the following principles apply: <ul style="list-style-type: none"> <li>• non-linearity</li> <li>• uncertainty</li> <li>• indeterminacy</li> <li>• both/and</li> <li>• wholism</li> </ul>
Only empirical/ observable phenomena count towards scientific data	Experience (including the non-observable) is data and a source of scientific knowledge

Despite the developments in science, social science including accountancy has remained within the domain of the classical Cartesian/Newtonian science foundations, till today. With regard to the accounting profession, the unending incidences of accounting scandals and corporate misdeeds including the current credit crisis has made it imperative for a shift in the paradigm of thinking in order to bring back meaning to the profession. By bringing back meaning, we mean the profession re-actualizing its intended purpose for existence framed against the actual reality of the universe. The etymology of “to account” as “to explain” denotes clearly the element of discharging the original duty as a steward or custodian of public trust. It is enhanced public trust that will be able to bring back value in the long-term to the profession for the worth of the accounting profession can only be judged by the party using its services. In order to effectuate sustained ethical behaviour among accountants, it is the motivation for such behaviour that needs to be addressed for human behaviour is only a shadow of their essence.

## Questioning the Tradition

On the basis of the tendency to remedy unethical behaviour with more stringent rules and regulations through the corporate governance mechanism, observers cannot be faulted for surmising that the approach has been reactionary and externally driven. Notice how the Sarbanes-Oxley Act came into existence in reaction to Enron? Likewise, more legislation is expected to be imposed to regulate the financial market in response to the credit crisis. It is this lens of viewing the human as controllable through an external mechanism that we posit needs a revisit. Against the backdrop of the likes of Madoff and other cases of degradation of human values, the continued use of the same lens to motivate accounting professionals and to formulate the education model for future professional accountants in discharging their duties to society seriously needs re-examination. Obviously it does no harm to consider solutions from a higher dimension as reminded by Einstein or to actualize real thinking out of the box. The public at large cannot be assumed to have continued faith in the profession if all that can be offered is more of the same thing.

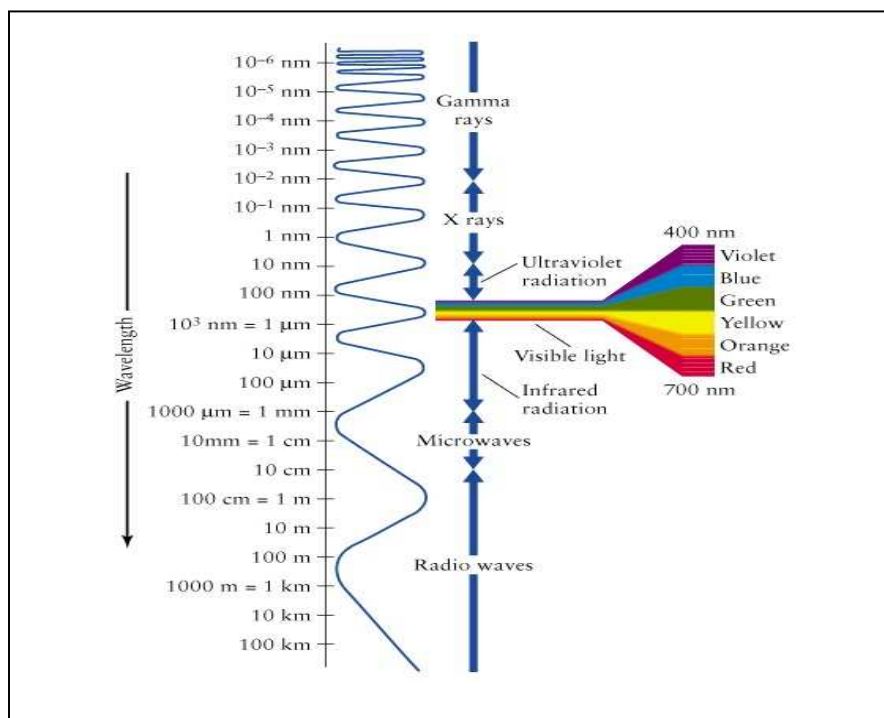
But how did such a perception of humans as being motivated by an external influence come into the thinking of accountants in the first place? This has its roots in the same earlier classical Cartesian-Newtonian science whose laws quantum physics managed to debunk. Modern-day accountancy, being a human discipline is much influenced by the social science thinking of Comte. When Comte first established a new discipline of the human and social science in the mid 19<sup>th</sup> Century, quantum theory had not made its mark. Although Goethe had begun questioning the fundamentals of classical science in the late 18<sup>th</sup> Century, the mainstream thinking prevailed especially in light of the successful scientific endeavours which gave rise to the industrial economics. It must however be borne in mind that the scientists community at that time never imposed their way of thinking about the behaviour of atoms on to the social science mindset. Rather, it was the social and human scientists who were obsessed with wanting to be scientific in order to create a sense of respectability and an aura of intellectual respectability. The phenomenon to adopt en-bloc the physical laws for inanimate objects to create science-based laws to explain human behaviour is what scientists termed “scientism”. Comte meanwhile, introduced “positivism” as an ideology towards entrenching the essence of the Enlightenment about the positive role of humans in understanding the world phenomenon. Positivism was intended as a human-based religion where the role of spirituality and consciousness was removed. Humans subsequently became social atoms or social animals within the fabric of society.

Upholding to the foundation of the universe as being only of the material, scientism and positivism have determined the development of human behavioural theories. Despite quantum theory demonstrating the oneness or interconnectedness and non-locality of the universe, social scientists and accountants alike continue to model their reality on a fragmented, causal-effect perspective. Any non-observable phenomenon is to be removed from the knowledge domain due to its non-verifiability. It is an assumption too, that humans, as the observer of a phenomenon in the universe, must be separated from the observed in order to be objective: hence removed of their values lest biasness remains.

Following this underpinning, gradually, the human-as-machine model became the keystone to the theory of human behaviour. Humans are viewed as devoid of feelings and emotions or other non-observable quality, in other words, removed of spirit and dynamism while success in terms of material achievements becomes the yardstick. The progress that ensued the industrial era further ratified this conveyor-belt thinking of the need for standard operating procedures and a high degree of standardization and control for the purpose of mass production in the name of efficiency and maximization of shareholders' value. To emphasize the value-free humans, the non-observable traits of humans became known as the soft side of human skills as opposed to the hard or the main. This is where the reality of the flaws of the lens sets in. While on one hand, humans are to assume machine-like controllable properties in order to achieve efficiency, on the other, humans are expected too, to be ethical through a disclosure culture. But it is a fact that machines are devoid of spirit, and with machines too, any defects could only be known through discovery and not disclosure! The *caveat emptor* rule that transfers the onus of discovery to the buyer is another impediment to the much sought after transparency and disclosure ethos. So how could this paradox be reconciled?

First, we investigate the perception of reality that is founded upon materiality. For this purpose, we offer the following diagram that depicts the spectrum of light demonstrating the proportion between that which is visible and non-visible.

Figure 1: The Visible Light Band



Source: NASA (2009)

The preceding diagram illustrates that the physical eye is only sensitive to a narrow band of light, the “visible light” between 400 to 700 nanometres (NASA, 2009). This is extremely minuscule compared to the entire electromagnetic spectrum which spans from  $10^{-6}$  nanometer which is about the diameter of a hydrogen atom to beyond one hundred kilometres. While the width of the visible light is 300 nanometres, the width of a human hair is in the range of tens to hundreds micrometres meaning that the capacity of the physical sense to observe the material is very limited. Given that the unobserved part or **blind spot** is far enormous and is real, despite not being able to be detected by the physical sense, rejecting the non-observable means that the picture about any phenomenon is incomplete. Imagine making decisions just based on the observable! The universe is not a collection of objects but a web of relationships. Yet, a model of reality typically framed by accountants usually is about the material only, with the non-material and non-observable omitted in the name of objectivity. Observable too, became equated with measurable.

But should this lens of reality prevail now that quantum theory itself has been proven as a reality of the workings of the universe? Although history shows that until the 20<sup>th</sup> Century, many of the social science models have worked well, we cannot be certain of the future. In view of the evidence in science establishing that the non-material part makes up more than 95% of the universe (Rosenblum and Kuttner, 2006) and that consciousness is a reality, we strongly call for a change in the mindset of accountants. The blind spot needs to be made visible!

### **Overcoming the Blind Spot**

In cognizance of the fact that the human eye is not capable of "seeing" radiation with wavelengths outside the visible spectrum, scientists have resorted to using other special apparatus to take up and illuminate the “blind” spot. Likewise, in the context of accounting, accountants must learn to move on to a different device to address the shortcoming of limiting to only one decision-making tool. Accountants need to appreciate that as humans, they are endowed with three faculties: the sense perception (eye of flesh); the intellection (eye of mind); and contemplation (eye of heart). Steeped in the tradition of materiality and objectivity, accountants tend to overly emphasize the physical sense perception and intellection. To sense the non-material attributes of humans, accountants should move to the use of contemplation or the eye of the heart, given the limitation of the physical eyes of flesh and intellection as the mode of knowing.

We illustrate this point through an analogy of the fisherman’s net designed to catch fish from a lake. A fisherman equipped with a net of 5 cm<sup>2</sup> mesh would only be able to capture fish larger than 5 cm in size. Can the fisherman now conclude that the fishes in the lake are all larger than 5 cm? After all, it is only this phenomenon that his physical sense perception could confirm. His intuition may say that there are obviously smaller-sized fishes but in the absence of any verifiable evidence, he has to reject this probability. Let us ponder the parallel of the fisherman’s case and the accountants’ view of reality. First, accountants, like the fisherman, must recognize that a tool designed for a particular purpose usually would not be able to perform well if not completely failing to perform other tasks it is not meant to. Like the net which is meant to catch fishes rather than extrapolate the size of fishes, the sense perception and intellection faculties are devices to sense and address the material and physical only. Accountants thus are called to find an additional new lens to rectify their inability to view a more complete representation of the bigger picture of the universe. The non-material needs to be included to provide for wholeness of the

accountancy world in which ethics and integrity are of primacy. Otherwise, based on logic and reasoning, ethics, values and integrity cannot be among the expected attributes of accountants for these elements cannot be captured by the accountants' current material net.

Another fundamental underpinning of thinking that accountants need to revisit is the world view of what it means to be human. Given that the development of science has profound impact on human and social sciences, that the tenets of new sciences are now the accepted general rules of science means that accountants should not ignore this established fact. Based on the work of quantum physicists especially of Pauli<sup>2</sup> and Stapp (1985; 1995; 2009), the pioneering work of Wheatley (2006), and the earlier thinking of Goethe<sup>3</sup>, we share a new perspective of thinking about human and organizations vis-à-vis the traditional with accountants.

Table 2: Traditional vs. New Perspectives on Humans

Traditional View	New Thinking
Humans are viewed as machines/ social atoms and behave like inanimate objects	Humans are sentient being with spirit and consciousness
Humans follow command-control rules and human behaviour is predictable	Humans do not conform to command-control rules and human behaviour is not predictable
Humans are value-free hence non-biasness can be achieved	Humans are value-laden/non-value free and cannot achieve non-biasness
Humans are viewed as resources similar to other assets	Humans are viewed as potentials having emergent qualities unique to oneself
Decision-making is about judgment and exclusion	Decision-making is about perception and making choices
Order comes from having structure and conformance	Meaning comes from freedom of information and goes beyond conformance
Equilibrium is the target	It is the edge of chaos that is the target

It is only with a new thinking order that the challenges and vagaries of the 21<sup>st</sup> Century knowledge economy can be addressed. It is timely too that accountants move up in their plane of thinking to accept the significance of the non-material and the importance of viewing the interconnectedness of subjects in shaping the world. Likewise, in respect to integrity, we wish to emphasize that integrity is not an object but a relationship between subjects which results in a perception. The lens that we use to develop and nurture integrity, if akin to the 5 cm<sup>2</sup> mesh net, then needs to be supplemented, for otherwise, integrity would not emerge. Therefore, until and unless integrity is accepted as a non-material, non-controllable reflection or shadow of the internal or essence of humans, integrity cannot be expected to be part of the accountants' trait equation. Integrity is about doing the right thing even when no one is looking. The business world has seen how the efficacy of the current lens which views integrity as one that can be actualized through a governance structure dominated by material reward or deprivation is found to be non-sustainable. The quintessence of integrity as a manifestation of one's values, ethics and governance paradigm needs to be better comprehended by using this new perspective of thinking. In light of professional accountants having a significant role in challenging conventional assumptions of doing business; redefining success; and in encouraging and rewarding the right

<sup>2</sup> Such as that cited by Atmanspacher, H. (1996)

<sup>3</sup> In the work of Bortoft (1996)

behaviours among others as identified by IFAC (IFAC, 2009), what could be a more fitting opportunity than to begin by challenging the underpinning of reality itself. It is only when the assumptions of reality are reflected in the model of thinking that the model becomes applicable.

### **The Bigger Picture of Governance**

As far as governance as a mechanism to oversee the conduct of accountants and body corporate is concerned, the issue of it being a rule-based box-ticking device has been much debated. The fact that Enron passed the test of corporate governance reinforces such thinking. But is such belief justified? When governance is presented in the form of a checklist of processes that needs to be adhered to, would it be wrong for the governed to focus on meeting the requirements of performing the processes rather than the spirit of conducting the processes? After all, the source of a non-compliance report is the omission of some procedures identified in the roll. For as long as governance is treated as a process<sup>4</sup> rather than a moral compass guiding the internal behaviour of human, the mindset of box-ticking a checklist is hard to be removed. According to Kay (2009), based on his experience, members of the board could become more concerned with finding an answer that would stand up to external challenge as encapsulated by the process rather than finding the right answer. Emphasis on procedure over substance meant that an opportunity to exercise skill and judgment drained away. The danger with process too is that it can never end. “There is always someone else who might be consulted, always some additional consideration that might be relevant” (Kay, 2009, p.1). So is governance all about process?

If good governance is about taking actions in order to actualize accountability at once to the three strands of the self; community and the universe and its people, then governance as a process cannot encapsulate this essence of decision-making. A process-based governance structure cannot but promote a compliance-to-rules mindset. A higher dimension of purpose to behave with rightness-of-action which is internally-driven and self-governed is sorely needed. But for such a phenomenon to take place, the focus on governance cannot remain on the corporation. Although corporation is legally a person, corporation is not a human person with the essence of a sentient being. Corporation itself is without spirit. As a body that is brought into existence through the passing of the rule of law, corporation is to observe the letter of the law. Yet, good governance is about substance, not form and observing the spirit of the law rather than letter only. Therefore, against the backdrop of the discoveries of new sciences where consciousness has gained centrality, it is the humans within the corporation who provide the soul of the corporation are those who need to be governed. The next section, underscores the reason how this human-centric frame of governance which we termed human governance can make meaning and create value and sustainability for the profession.

---

<sup>4</sup> For instance the definition by UNESCAP on good governance states that governance is the process of decision-making and the process by which decisions are implemented.

## **From Corporate Governance to Human Governance – Towards Value Creation and Sustainability**

We believe by now, the reasons to move along the paradigm of thinking into one where its assumptions do reflect the reality, have been established. Just how would human governance bring meaning to the profession and how different is it from corporate governance?

On the latter, briefly, human governance is an internal, inside-out and values-based conviction to guide the human as the sentient being to behave whereas corporate governance is an external, outside-in rules and regulations to legislate the behaviour of corporation, as a legal person. Human governance looks at the axiology, encompassing the traits of values, religion, belief system, culture, and ethics in order to foster a culture based on trust where human within the organization is viewed as the soul of the organization. The belief is that rightness-of-action by an individual is not about being right according to some codified rules or man-made laws but benchmarked against the primordial and innate nature. Hence, human governance when actualized by professional accountants, allows for the emergence of high ethical values and moral conduct. To act towards upholding public trust through accountability for the self; community and universe would become second nature.

A human-centric governance framework transcends organization type and structure because the unit of analysis is at the level of the individuals within the organization. Regardless of the work setting, a human-based, internal mechanism of governance will always have human values as its guiding principle. This means that professional accountants will be guided by the same values structure irrespective of the business outfit they are working in. In the presence of this principle-based governance, attempts to design separate governance codes for the corporation, enterprise or public sector become housekeeping. However, the focus of human governance to bring about accountability beyond the self and a work culture beyond compliance means that the best in a professional accountant can be brought out. Likewise, when guided by the conviction to be accountable at once to the self; community and the universe and its people, professional accountants would believe in the need to integrate sustainability into the objective, strategies, management, and definitions of success of their organizations. The need for an external mechanism to enforce sustainability becomes less significant. When behaviour is solely guided by a deep sense for rightness-of-action, the lure of material rewards to compromise values also appears less attractive. It is only with ethical conduct too, that public trust of the accounting profession can be brought back. With public trust, comes public confidence which is translatable into value creation.

While the adoption of human governance holds much promise for a more sustained ethical behaviour among professional accountants, the issue of how to inculcate human governance remains pressing. We begin by calling for serious recognition of the necessity to view the universe as a web of relationship among its parts and between the parts and the universe whole. If reality remains a collection of objects and observables equated to measurable, then we cannot place non-objects and non-measurable traits like values and ethics into the equation. Moral values for instance cannot be measured but can only be meaningful against or in relation to some frame of reference. Likewise, ethics is a perception that arises out of a relationship in a set of network. It is only when this relational characteristics of ethics and moral values are accepted by accountants that a governance structure to address them can be formulated. Any amount of codification of the “dos” and “don’ts” for ethical conduct would be futile in the absence of an

internal personal belief system for ethical behaviour. Ethical conduct should be the result of a true conviction which emanates from the heart: it is neither about logical rationality nor only for reason to meet the external requirement. That accountants need to move from the atomistic classical science paradigm of thinking to the quantum physics' web of life now becomes a prerequisite. In the image of the larger universe, this means that rather than being obsessed with the planets as the objects for instance, it is the space within the planets that needs attention too. Precisely, this thinking paradigm has led to the discovery of the expansion of the universe over time.

When human governance as an internal moral compass is being practiced, integrity can be observed. But because integrity is only a symbol of the inner state of values, in order to encourage integrity, it is the shaping of the internal character that needs to be nurtured. Towards this end, we argue for a holistic approach in tackling integrity, just as the etymology of integrity suggests. Integrity which originates from Middle English "integrite" and Latin "integritas" from "integer" denotes wholeness or completeness. Unlike the current tendency to differentiate and fragmentize between religious and moral values; culture; belief system; and legal codes following the Enlightenment episteme, the way forward to allow for the emergence of integrity is to reintegrate all the components. Integrity must always be taken as the output of the integration of all the above. In short, not only must a professional accountant possess the relevant technical knowledge, he or she must also be able to at once internalize and actualize an internal conduct that promotes integrity. Johnson, in questioning a basic principle of human, wrote that, "Integrity without knowledge is weak and useless, and knowledge without integrity is dangerous and dreadful" (Johnson, 1759, Ch. 41). And to ensure that integrity becomes the pillar of behaviour, sole reliance on legal codes as the enforcement mechanism has to be reduced. Codes, rules and legislation are merely reminders to complete the integrity wholeness.

To facilitate this reintegration, accountants need to get familiar with the descriptive relevant to both the corporate and human governance ethos in moving from a legal person frame of mind to that of the sentient being. We list some of the relevant ones in Table 3. Each descriptive should be seen as forming a continuum between on one end, meeting the legal requirement and the other, as a human person of sentient origin. What is hoped for is that accountants begin to identify the position they are currently in with respect to the spectrum and embark there on, on a journey towards reaching the human governance pinnacle. Since human governance is human-centric and values-based, the journey too is peculiar and special to each individual for it is shaped by one's milieu, much influenced by religion, culture and belief system, among others.

Table 3: Corporate Governance vs. Human Governance

<b>Corporate Governance (For the Legal/Artificial Person)</b>	<b>Human Governance (For the Sentient/Spiritual Being)</b>
<ul style="list-style-type: none"> <li>• Discovery</li> <li>• Translucent</li> <li>• Conformance</li> <li>• <i>Caveat emptor</i></li> <li>• Dead</li> <li>• Symbol</li> <li>• Label</li> <li>• Form</li> <li>• Rule-based</li> <li>• Legal enactments</li> <li>• Rules &amp; compliance</li> <li>• Newtonian classical</li> <li>• Fragmented</li> <li>• Outer-in</li> <li>• Letter of law</li> </ul>	<ul style="list-style-type: none"> <li>• Disclosure</li> <li>• Transparent</li> <li>• Beyond conformance</li> <li>• <i>Edico venditor</i></li> <li>• Emergent</li> <li>• Meaning</li> <li>• Essence</li> <li>• Substance</li> <li>• Principle- &amp; values-based</li> <li>• Innate nature (<i>fitrah</i>)</li> <li>• Good conduct &amp; beyond compliance</li> <li>• Quantum science</li> <li>• Wholeness</li> <li>• Inner-out</li> <li>• Spirit of law</li> </ul>

### Conclusion

On the basis of the goodness that human governance could bring to the profession, the way forward is for professional accountants to begin to accept the culture of human governance as the core guiding principle for professional conduct. Despite our conviction in the ability of this values- and principle-based governance to bring back the meaning of integrity in the life of professional accountants, we do not posit for an abandonment of corporate governance. Corporate governance, enterprise governance, public governance or any other governance structure which focuses more on the processes could now play a role as the back stop. Through this approach, a more holistic governance framework will be put in place so that ethical behaviour as originally meant to be in the realm of the accounting profession can be re-actualized to create value and preserve sustainability.

## References

- Atmanspacher, H. (1996). The hidden side of Wolfgang Pauli: An eminent physicist's extraordinary encounter with depth psychology. *Journal of Consciousness Studies*, 3(2): 112-26
- Bortoft, H. (1996). *The wholeness of nature: Goethe's way of science*. Edinburgh: Floris Book
- IFAC (2008). *2008 IFAC Global Leadership Survey on the accountancy profession – Summary of results*. IFAC
- IFAC (2009). *IFAC Sustainability Framework*. IFAC
- Johnson, S. (1759). *Rasselas*. Retrieved 1 August, 2009 from [http://www.wwnorton.com/college/english/nael/noa/pdf/johnson\\_s.pdf](http://www.wwnorton.com/college/english/nael/noa/pdf/johnson_s.pdf)
- Kay, J. (2009). Box-tickers should not be the ones making decision. *Financial Times*, 29 April. Retrieved 1 July, 2009 from [http://johnkay.com/in\\_action/607](http://johnkay.com/in_action/607)
- NASA (2009). What wavelength goes with a color? Atmospheric Science Data Centre. Retrieved 6 April, 2009 from [http://eosweb.larc.nasa.gov/EDDOCS/Wavelengths\\_for\\_Colors.html](http://eosweb.larc.nasa.gov/EDDOCS/Wavelengths_for_Colors.html)
- Rosenblum, B. & Kuttner, F. (2006). *Quantum Enigma – Physics encounters consciousness*. Oxford: Oxford University Press
- Stapp, H.P. (2009). The role of human being in the quantum universe. *World Futures: Journal of General Evolution*, 1556-1844, 65(1): 7 – 18
- Stapp, H. (1995). Values and the Quantum Conception of Man (LBL-37315) *Paper presented at the Unesco Symposium*, Tokyo, September
- Stapp (1985). Conscious and values in the Quantum Universe, *Foundations of Physics*, 15(1): 35-47
- UNESCAP (2003). *What is good governance?* United Nations Economic and Social Commission for Asia and the Pacific
- Wheatley, M. (2006). *Leadership and the New Science: Discovering order in a chaotic world*. 3<sup>rd</sup> Edition. San Francisco: Berrett-Koehler Publishers.