Abstract: To Concur or Conquer? Redirecting (Vocational) Accounting Education.

This article discusses critical issues in (vocational) accounting education amid the industrial revolution 4.0. This article uses a reflexive approach, through the critical reading of phenomena and basing them on Islamic values, as a method. This article proves that the duality of academic and vocational accounting education forms an industrial accountant who is trapped and complies with capitalist interests. Amid the current Industrial Revolution 4.0 which has negated God, (vocational) accounting education should teach religious ethics, involve students in the construction of reality, encourage entrepreneurship based on religiosity, and ensure mastery of information technology.

In considering the role of the university, a key lesson from the past relates to the involvement of the university as a social institution in a period of massive social change—the Industrial Revolution—both as an agent of change and as an object of change” (Boyce, 2002:578).

Accounting education has received critics in terms of its function to create rational-mechanistic labours (Bakhtiar et al., 2019; Kamayanti, 2014; Mulawarman, 2008), yet it continues to concur to the stream of industrialization, especially now amid the industrial revolution 4.0. Boyce’s (2002) and Irsyadillah (2019) concern on the function of university, home of accounting education, being agent of change and object of change, now materializes into harsh reality. University is also caught up in being object of change, rather than agent of change. University is trapped into being formed by capitalists’ interest, or worse, being capitalists themselves. The pursuit to become top-ranked universities is done by scoring numbers of articles published in high-ranked

accounting journals which impact “university funding and reputations” (Malsch & Tessier, 2015:85) or obtaining the high score in webometrics to win university competition (Brooks & Schopohl, 2018; Kindsiko & Baruch, 2019; Walker et al., 2019). Universities are busy collecting the “IF” (impact factor, indicating grade of an SCI article), ESI (essential science indicators, indicating total citations of a SCI paper) and the total amount of funds are paid most” to establish reputation (Cui et al., 2019). All this is under the “legitimizing the English-speaking Western hegemony in the production and distribution of knowledge in the global knowledge economy” (Komori, 2015:141).

One of Western knowledge hegemony is the emphasis of technology advancement. Human must be transformed to Western Educated Industrialized Rich Democratic (WEIRID) society if modern civilization is to be embarked. The term WEIRID society itself was coined by Henrich et al. (2010) in their working paper on psychology. They claim that it is not intended to degrade the Americans specifically, is used to describe how Americans especially, has different patterns of behavior to the rest of human species (Gray & Keeney, 2015; Talhelm, 2018; Talhelm et al., 2015). Nevertheless, science is commonly developed using this WEIRID society, including accounting theories that originated to the assumption of humans in Resourceful Evaluative Maximizing Model (REMM) (Jensen & Meckling, 1994), where human is portrayed as opportunistic individuals. This assumption has also become the base of developing Agency Theory and Positive Accounting Theory that accounting academicians are most familiar with. If accounting is developed by WEIRID assumption, and WEIRID society is not even a solid base to generalize humans (accountants) behavior, then our current dominant Western-Based (read: American-based) accounting can’t also be used to generalize accounting discipline.

WEIRID society is discussed in Mulawarman (2019) as part of his criticism towards the dominating western civilization. Harari (2015) claims that this is not enough if human is not to move beyond what is feared most in life: death. He brought up the notion of the abandonment of God in “Homo Deus” as mankind has achieved his/her ability to solve the world’s mystery by using algorithm. Human has indeed realized his/her Cartesian role “cogito ergo sum”. As Comte (1896) put it, the advances of human mind or its intellectuality has reached its peak. I believe industrial revolution 4.0 is the advanced transformation of positivism. The key of positivism is the leaving out of the irrational, the spiritual and God, since they are the reflection of the “infancy of human mind” (Comte, 1896:228). In 2013, Google launched Calico as a unit specializing on health; one of its projects is the cure for death, confirming the apex of human power to replace God. The keys to master science, hence the world, are algorithm, integrated mechanization/robot, and big data. These aspects are the corner stones of industrial revolution 4.0.

When accounting is viewed only as instruments to provide financial information, then such question would never arise. However, viewing accounting as tools in such way (Beattie, 2014; Brennan & Merkl-Davies, 2014; Vollmer, 2019) reduces the true science of accounting as a result of social interactions, not just transactions. Accounting creates reality (Bayou et al., 2011; Mohammad, 2016; Zeng, 2015), and reality in turns affect and is affected by human’s behavior (Leiby & Madson, 2017; Roslender et al., 2015). Further, accounting can even be utilized as a means to maintain neo-liberalization (Funnell et al., 2016; Tinker, 2015; Zhang et al., 2012). If accounting is seen as a central part to build civilization in the ways that we want to achieve, then accounting education should be geared in the same direction.

This paper seeks to ignite awareness that there is a danger lurking in the realm of industrial revolution 4.0. [Vocational] accounting education should not only create workers, but conscious, ethical, working class, who could serve not only manufacturers, but are also able to become entrepreneurs. [Vocational] accounting education should not produce “parts” of machines in industries to concur the needs of industrialization, but it should produce full-potential human with all human characters to serve mankind by conquering any obstacles in order to serve God. The paper is structured into introduction, a critical reflection of the downfall of modern [vocational] accounting education as portrayed in media, a reflexive account as practitioners of [vocational] accounting education, and finally a proposal of integrated [vocational] accounting education.
METHOD

“The doctor comes to see his heart transplant patient. “This is good news. It is very unusual, but we have two donors to choose from for your new heart.” The patient is pleased. He asks, “What were their jobs?” “One was a teacher and the other was an accountant.” “I’ll take the accountant’s heart,” says the patient. “I want one that hasn’t been used” (Miley & Read, 2012:709).

The quoted joke is a reflection of phenomena of accountants as portrayed by general public. An impression that accountant has no “heart” or compassion since he/she uses only rational, deductive approach in problem especially economic decision making is a “well-known” attribute of accountant. For that reason, I believe, a reflective account especially mine, being the actor of [vocational] accounting education should possess more trustworthiness (to replace validity) in a qualitative approach compared to analyzing popular cultures such as jokes. However, jokes or any other form of popular cultures give portrait worth investigating since it sheds light on the major public perception.

There are two stages in this research development. Firstly, to evoke consciousness that the downfall of vocational accounting education is present, I would start by analyzing phenomena of industrial revolution and its impact to education that can be traced from the internet. Images and news as well as jokes are ingredients that can be explored further. I have taken the liberty to download several images from different sources to portray accountants in society. Pictures as popular cultures can best give a great public perspective about issues being studied. The phenomena was also analyzed in terms of Islamic values from Quran and hadith.

Secondly, a personal reflexive account was then combined with phenomena reading, both globally and nationally. Personal reflexive account comprises my own experience as a student of vocational accounting education, my interaction with vocational accounting education lecturers, and my experience as a [vocational] accounting education lecturer. Some students’ works are also displayed to show how a transformation could take effect if lecturer exerts spiritual-religious values in even the most technical accounting learning process.

Both analysis were then cross-referenced and by using Islamic teachings as base, which then led to the reconstruction of [vocational] accounting education. This research follows the belief that science is generated from experience or as Gill (2014) and Vagle & Hofsess (2016) coined: experiential science.

RESULTS AND DISCUSSION

The downfall of modern [vocational] accounting education. As the world becomes more increasingly mechanical in industrial revolution 4.0, vocational and even academic accounting education follows. In neoliberal era, modern education has gained critics as it produces labors for corporations (Bhattacharyya, 2013; Ekasari, 2014; Graber, 2014). Education has been reduced into technical skill transfers instead of value transfers. Nowadays, the [new] paradigm of education is named factory-teaching, and gives a new name to universities as factory teaching universities, further aligns industry with academia. This paradigm introduces "modern concepts of training, industrial learning and knowledge transfer" (Chryssolouris et al., 2016:44) that originate from Europe to improve the manufacturing processes of European industry, which is more in line with industrial revolution 4.0.

If academic education suffers from labor-oriented product, vocational education is worse since vocational education is indeed “a formative training of working class” (Benavot, 1983:64) that was originated from the first and second industrial revolution. A study that was conducted by Abhayawansa & Fonseca (2010) and McDowall et al. (2014) indicate that in developing countries, products of vocational accounting education significantly have lower wages compared to academic/professional education. This would cause different attitude of students in learning accounting. In developed countries, however, there is not much difference in their salaries.

Further, vocational students feel that accounting is learnt for practical application in employment. Abhayawansa & Fonseca (2010) and Howcroft (2017) show that vocational students assume that gaining skills needed by an accountant to obtain a job upon study completion is the key benefit of studying accounting. Some students, in some cases, view the advantages of education as simple as being quick and straightforward: only finding a job. This emphasis is
confirmed by the purpose of accounting vocational education in a well-known public institution in Indonesia. It states that the purpose of accounting education is to produce practitioners in accounting who are able to prepare financial reports on the basis of documentation relating to financial accounting standards for a single entity and also organizations with one subsidiary by employing information technology. The products of vocational accounting education are expected to be able to disclose income tax and Value Added Tax (VAT) in accordance with applicable tax law. All of these tasks are done under the supervision of accountants. Such accounting vocational education would degrade the vocational field especially that in the government statute, it is stated that vocational study can have the highest level as an applied doctor. Would this mean that a vocational doctor is lower in strata compared to a PhD or academic doctor? I do not think so.

If [vocational] accounting education is clearly destined to produce ready-to-work labors, why bother to criticize its role now in industrial revolution 4.0? I believe that this duality (academic and vocational) in accounting education does not do justice to the eschatological purpose of education for those who still believe in God and serving God. The Indonesian government decree, statute number 12, year 2012 in high education, states this duality especially in article 15 for academic education and article 16 for vocational education. In this decree, it is stated that academic education strives to ensure students’ mastery to develop science while vocational education ensures students’ competence in developing and applying science. Logically, how could you apply without mastering or vice versa? This question may no longer becomes necessary in the industrial revolution 4.0 since both tend to be geared towards industrial needs. By discipline, accounting currently is seen only as business or economic decision-making tool. For this stance, I use bracket in [vocational] accounting education throughout the article to highlight this duality insignificance.

The shift of education towards factory teaching university is the sign that it concurs to industrialization. As I searched for factory-teaching paradigm, Figure 1 came up. As labours (accountants) are products of education industry to fulfill needs of industries, they must function as parts of bigger machines. The illustration criticizes how creativity, discipline, and even intelligence are taken out from students and regarded as wastes.

As people are parts of machines, they must function objectively. Hence, the domination of rationalization in modern accounting education is imperative. This is further exacerbated in [vocational] accounting education, and as result, has contributed to modernity problems. When technicality in accounting means the mastering of various calculation techniques, then it is only natu-
nal that numbers become the base of all decisions. In accounting, such information is called having a decision-usefulness character.

Maximizing profit is then become the goal of any corporations as induced by accounting’s bottom line. Numbers become rationalization for silencing injustices (Chwastiak, 2015; Kusdwanti & Hatimah, 2016; Nurindrasari et al., 2018), and even a legitimation to reproduce war (Lehman & Thorne, 2015). As Friedman (2007) stated “a company social responsibility is to increase its profit”, becomes a self-fulfilling prophecy. Such modern accounting education creates a world with no “heart” as found in a popular joke about accountant or as expressed by Molisa (2010):

“If this world was one that is full of love
Our “bottom line” would simply be love
If this world was full of doves
Our “bottom line” would simply be peace
So what does it say about our ways
When our bottom line’s an abstract number?
Many things, many things, I hear you say
But the truth is much, much simpler
This is a world so full of lovelessness
That it requires an accounting cipher
That hides the hate, the scars, the pain and blood
On which it cannot help but render” (Molisa, 2010:529)

I found an interesting cartoon (Figure 2) that emphasizes Molisa’s concern on the bottom line “abstract” numbers that are considered very important in accountants’ perspective. This image shows that accountants have been solely used for the purpose of the corporations to achieve profits. Profit has become the accountant’s straitjacket. The website, which contains this image, conveys the concern that targeting corporation’s purpose on profit would “… dehumanized organizational life, but in many large businesses they have also contributed to increased variation in bottom-line results” (Johnson, 2018) The idea of a straitjacket itself conveys message that an accountant is psychologically unwell since straitjackets are normally worn by lunatics in mental hospitals or severely feared bandits in prison. Restraint by straitjackets were used in 1730s, and was usual in early “madhouses” or asylums to restrain patients with mental health order (Bynum & Bynum, 2016). The Quran explains this madness in Surah Al Baqarah verse 275:

“Those who consume interest cannot stand [on the Day of Resurrection] except as one stands who
is being beaten by Satan into insanity. That is because they say, “Trade is [just] like interest.” But Allah has permitted trade and has forbidden interest. So whoever has received an admonition from his Lord and desists may have what is past, and his affair rests with Allah. But whoever returns to [dealing in interest or usury] - those are the companions of the Fire; they will abide eternally therein.”

The term insanity in the Quran refers to madness and this especially relates to the business ethics. Islam regards this insanity in far worse state of human since this is not a simple psychological anomaly but a condition that is satanic as in possessed by evil. Interest is forbidden in Islam because it hurts justice to those who are in need. Yet “interest” as concept, calculation, and practice is still present in the teaching of accounting through Time Value of Money (TVM). However, taken further, teaching trade to exploit profit is another form of riba or interest as claimed by Ali Engineer, a moslem scholar:

“He [Engineer] also argues that Islamic injunction against riba is not merely against interest, or a fixed rate of return, but rather against economic excess, surplus or exploitation, whether in the form of rents, profits, or speculative gains” (Jomo, 2016:4)

The pragmatist in Islamic accounting academia would hide behind the legality of “trade” and that trade is ethical, while riba is not, and in this way they concur to the maximization (or exploitation) of profit, that would then be accumulated as capital. Stock concept is a dominant thought and prevails in capitalism, though Islam teaches flow-concept in economic activities. Accumulation of wealth (hoarding) is despised in Islam and the doers are threatened by severe punishment in hell, such as stated in Surah At Taubah Verse 34 and 35:

“O you who have believed, indeed many of the scholars and the monks devour the wealth of people unjustly and avert [them] from the way of Allah. And those who hoard gold and silver and spend it not in the way of Allah - give them tidings of a painful punishment. The Day when it will be heated in the fire of Hell and seared there-with will be their foreheads, their flanks, and their backs, [it will be said], “This is what you hoarded for yourselves, so taste what you used to hoard.”

Religious values seem to disappear in accounting ethics courses. The separation of religious values and accounting or any discipline is termed as secularization of science. Humans differ to animals from their ability to differentiate what is ethical and what is not. Out of this rationalistic-bottom line-oriented mindset, we have witnessed the fall of Enron and Worldcom, great accounting scandals, as a result of accountant unethical conduct (Bailey, 2017; Reckers & Samuelson, 2016). Even after the Sarbanes-Oxley act in 2002, and the insertion of ethics into [vocational] accounting education, unethical accounting conducts continue to haste, namely Healthsouth Scandal, Freddie Mac Scandal, American Insurance Group Scandal, Lehman Brothers Scandal, Bernie Madoff Scandal, and Saytam Scandal (2009).

Figure 3 reflects a satire joke that accountants and ethics do not go well together. The fact that the insertion of ethics goes hand in hand with the continuance of fraud should let us wonder This certainly raises questions about what it is that academics and lecturers have failed to convey. One of the answer may lie not on what we teach but how we teach. Currently [vocational] accounting education is taking a banking-style model (Boyce et al., 2019; Brown & Dillard, 2019), where students are seen as deposits. Such education deafens critical consciousness for students are encouraged to learn plentiful of skills to master competencies. When students are machines they can be replaced. Consequently, the lecturers/teachers must first acquire similar critical consciousness if they want to induce the consciousness into accounting education. Educators must be transformed first before transforming students (Kamayanti, 2018).

However, I believe that both should co-exist- how and what we teach- have great impact on accounting students or future accountants’ ethics. The failure of accounting ethics teaching may be caused by the negligence of true ethical values that must always
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become the base of accounting: religious values. Universal ethics poses threat when it is not guided by religious values, for example, the LGBT concept, that is threatening the human’s life existence or continuity and despised by all religions, is accepted in human rights convention. This “universal ethics” have misled genders and sexuality as well as sacred union between man and human. Especially in accounting and business, the “what” that must be taught is the existence of life hereafter, and that every human will be responsible for all the misconduct during their lifetime. Quran, Surah Al Anfal verse 27 states “O you who have believed, do not betray Allah and the Messenger or betray your trust while you know the consequence”. If this trust that is placed by fellowmen for accountants to account for financial and non financial activities is realized, then ethics will not become mere requirement to be trusted by market – again in turn to obtain as much profit as possible.

Industrial revolution 4.0 is the integration of machines, big data, automation through internet of things (IoT). I looked up “accounting and industrial revolution” and found an image (see Figure 4). This fear is more than justified since it is generally realized that machines work, and if humans can’t work as well as machines, they will be obsolete. Hence, it is education job to provide outputs: humans as machines. These “machines” are entering a world of competition. The word “competence” that is so often used in education springs from the same word of “compete”. The world, as depicted in the [vocational] accounting education, is a competition where students are expected to excel in computational skill to win over others. Other ‘humans’, which will then materialize to other ‘corporations’, are “enemies” that we should shoot down, if necessary, in order to become the greatest.

It is true that [vocational] accounting education is packed with technical calculative exercises, which hinge on rationalism. Through this calculative culture, students are trained to make economic decision. If this approach is the only approach in teaching vocational accounting students, then what is feared about machines replacing human as illustrated will eventually happen. In life, decisions should not be made based on single aspect. By focusing on rational decision making, students are denied their full capacities as human.

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I, however, believe that we should keep in mind that technology, as the name implies, serves only as tools to make humans life easier. It is not here to replace human beings. Figure 4 will be true if humans are indeed machines and function according to instructed rigid procedures. Technical profession such as bank teller has been long replaced by Automated Teller Machine (ATM), yet the ‘brain’, ‘moral’, ‘ethics’, and ‘akhlq’ of the profession could never be replaced by machines. “Akhlq” is a term in Islam that goes beyond moral or ethics, since akhlq has reference to religious beliefs and that what we do in this world must be answered to in the after life. “Akhlq” also relates to the continuing purification of souls (tazkiyah an nafs) and follow the guidance of the Qur’an. This is stated in the Quran, surah Al-Ankabut (29:69) “And those who strive for Us, We will surely guide them to Our ways. And indeed, Allah is with the doers of good.” This should bring into realization that as long as the goal competence of education is attaining technical skills, any education (including accounting education) will soon be obsolete.

Recent articles on education in industrial revolution 4.0 tackle the integration of technology into learning process. The discussion relates to the use of Artificial Intelligence (AI), augmented and virtual reality, which can trigger creativity and pleasure in learning (Buasuwan, 2018; Shahroom & Hussin, 2018; Teng et al., 2019). I think that integrating information technology with education is less significant compared to the values-transfer function in education. Employing information technology is a “how” aspect in learning process, but values-transfer is the “what” aspect that may induce critical, and better, religious consciousness. Relying too much on these technologies or machines would reduce humanity in learning process.

A personal reflection confirmed this reduction of human relation in learning pro-
cess when one is too dependent on (information) technology. One day, the power was down, and therefore there was no electricity available. It was almost beginning of a class session and my students complained that there was no way the class can commence because they have prepared the power point presentation (in power point format). The class itself was hot without air conditioner and the students asked if we could postpone the class another day when the electricity will be on. At this point, technology becomes an essence, not tools in learning process. Why must a presentation of materials use electricity? Could educators or lecturers teach without electricity or even a power point application? Why is air conditioner important in classes and why is it hard to conduct class without electric light and air conditioner? Learning is essentially interaction or communication to transfer values and skill between educators and learners, and technology is just a media of communication. Without media, learning should be able take place. Yet, since there is too much dependence in technology, education seems to be replaced by technology itself. When in the absence of air conditioner, education can’t take place, it might prove that most education institution hardly takes into accounts how architecture of buildings should be designed to use less electricity and lighting (green-eco-building).

This also proves we tend to exploit nature rather than to coexist with it.

Industrial revolution 4.0 centers its advancement through technology. Education has a great challenge ahead to induce awareness that technology should not above human. Education should also ensure the instilment of religious values in every material taught is imperative to remind learner that God has placed great responsibility to human on earth. This would mean human must control and not be controlled by technology.

Islam never rejects science and technology. The prophet Muhammad PBUH confirmed that human must always pursue knowledge until the time of his/her death. Hence if science and technology are built upon the values of *Tawhid*, science and technology would serve to benefit mankind. Yet recent phenomena, as described by Anninos (2019) and Harari (2015) in Home Deus indicated that science and technology are no longer in need of religion. When this happens, technology will enslave human as it rises to greater significance above human and even God.


Figure 5. “Stupid” Accountants in Industrial Revolution 4.0
Source: O’Neil (2017)
in academic education. In my days as a vocational student, I was overwhelmed with technical tasks to ensure my competence in various fields of accounting practice. I felt my skills help me to understand accounting better, and as I continued my undergraduate accounting education, I have had no trouble adjusting with academic learning. In fact, my colleagues and I who were transferred from diploma program found academic program easier to tackle when, for example, we had to face advanced accounting, compared to “pure” academic undergraduates. Now that I am teaching in a vocational education institution, I understand the pressure given to vocational students to meet industrial requirements. The packed and tedious hours of accounting practices ensure that students possess competence to be skilful workers not to say labors!

I feel the advantages of the vocational educations I received for the first three years of my undergraduate career. My colleagues and I who received vocational education and moved on to academic education feel that we adapt quick to any technical or analytical situations because of both types of education. I feel that anyone should be privilege to have holistic education. It was heartbreaking when I heard the ministry of research, technology and higher education in Indonesia spoke one day in a national seminar, held in a public university 13 March 2018, quoting findings from the International Labour Organization (ILO) of the urgency to provide skilled labors for the industry. Education, even more vocational education, is geared towards full labors for the industry. Education, even investment, is necessary to invoke critical and religious consciousness, as well as bringing up human’s characters such as care and empathy. Such approach would balance rational-secular method of education, a dialogic approach is necessary to invoke critical and religious consciousness, as well as bringing up human’s characters such as care and empathy.

One of this “rational” decision-making activities is the realization and accumulation of profit. The bottom line profit has so many times been accused of inducing greed, which in turn leads to fraud. As an experience in management accounting class, I asked 60 students in three classes to make decision on price determination for transfer price and selling price of a cancer medicine. Only 3 students decide not to increase price because of “compassion” and “empathy” since increasing cancer drug may cause life and death situation. This meant that 95 percent believed that it is more important to base decision on rationality in the name of profit, rather than to conserve humanity. When this fact was brought up, many students were upset to find that they have been egoistic in nature. We are concurring to the great rationalism and the banishment of God wave, instead of conquering the robotization of mankind. What will happen then when all of us become machines? If machines can be depreciated and will be obsolete, then mechanistic humans can be too. As an antithesis to rational-secular method of education, a dialogic approach is necessary to invoke critical and religious consciousness, as well as bringing up human’s characters such as care and empathy.

This is what I believe should change. Any education purpose should be about transforming human to increase his/her piety or taqwa, to achieve his/her full potentiality and to serve mankind. Such grand purpose of education has actually been stated in the Indonesian regulation of national education system (Statute Number 20/2003). Hence, the division between academic and vocational education in fact weakens the products of education by separating the “thinking” from the “doing”. The academic students are mainly taught to “think”, while vocational students are taught to “do”. Education should encompass both, and even more. “Thinking” that is then followed by “doing” are two activities that are driven from rationalism. The division is a reduction of the vision of holistic education.

Given the era of industrial revolution 4.0 where automated robot is integrated with big data and everything is rationalized in the form of algorithms, human is facing a serious threat of being diminished into a series of algorithm as well. We are teaching our students to be parts of machines who act like machines where “heart” is no longer needed. It might just then be true, that accountants’ hearts have never been used such as presented by a joke at the beginning of this section. We are concurring to the great rationalism and the banishment of God wave, instead of conquering the robotization of mankind.
these technicalities were exercised to retain vocational dimension. Transferring values could still be done by ensuring that students understand how numbers should not be the sole bottom line. It was simple. After discussing the orientation of profit (as mostly emphasized in accounting textbooks), discussion can be geared towards environmental impact of careless business. Examples are abundant. Short videos from World Wild Fund (WWF), for instance, could become an antithesis to profit achievement. This proves effective. My students came up with essays that indicated consciousness transformation. Some paragraphs are cited in as follows:

“In this pandemic they produce the same as normal situations... the price [of products] will be higher. If [the rise of price] is normal, it’s okay, [but] what if the price goes up by 200%? This is not normal or we call it dysfunctional behavior. They only take advantage to achieve maximum profit, what about their ethics? They don’t think about ... people [who are in] need for an urgent situation. They can get the best image in the company in a way they can increase profits, but what about their hearts or spirituality? They do all the work they have to use their hearts like real people, not robots who set out to get money. They must respect others or maybe they think that the people in need are their families, how do you feel about that? It’s sad if they always make money as priority. All actions in this world will be accountable to God” (Student C).

This assignment was taken during the Covid-19 pandemic, hence it can be seen how Student C, for example, can relate the existing phenomena to management accounting. This shows that an educator could always adapt the learning materials according to contextuality. Boyce et al. (2019) and Brown & Dillard (2019) would refer this relation to contextuality as finding “generative theme”. Exploring generative theme is essential to shift consciousness of students from naïve to critical and further to religious consciousness.

The challenge in teaching accounting is the unavailability of book that can suit a dialogic education. Most books are filled with definition and calculative practices. If (any) ethics are integrated into learning materials, the ethics taught are universal and not market based ethics. For this reason, I have decided to produce my own teaching materials that enable dialogic process to take place, such as:

“Basically Positive Accounting Theories has human assumptions as creatures who want to always maximize profits. Do you agree with the PAT assumption? Compare with humans that God expects in
your scriptures. Refer to verses in your holy book to strengthen your argument” (Translated from Kamayanti, 2019:79).

“When an accountant commits fraud, such as faking an amount of money on receipts, what accountant’s code of ethics has been violated? Does God like those who cheat? Quote a verse from your holy book (or a hadith if you are Muslim) to strengthen your answer” (Translated from Kamayanti, 2019:79).

The following tasks are an example of how I would integrate religious values and practical issues. Students tasks/assignments are designed in such ways that will force students to go back to their religious values (be it Islam, Christian, Hindu, Buddha, etc).

**Taking over the steer: taking a conquering stance (not to simply concur).**

The first step to shift [vocational] accounting education paradigm is to realize the true education function and transform teaching techniques as consequence, understand accounting not as instruments but as science formed by social interaction, and fulfill capacity of students as human with responsibility to God and therefore think beyond the achievement of competence.

We can’t stop the rise of industrial revolution 4.0, and may be its advances into 5.0, 6.0, and so on in the future. However, we could use (or conquer), not be used by (or to concur), the industrial revolution to our good cause with ethical-spiritual values. This means the introduction of non-rational aspects of accounting as well as means of education. There are also discussions on the possibility to evoke spiritual consciousness through learning method by exercising emotion not just rationality (Triyuwono, 2010), to introduce feminism into accounting teaching (Andersen & Klamm, 2018; Aneswari & Musmini, 2017; Calabor et al., 2019; Dickfos et al., 2014; Setiawan et al., 2014; Stout, 2016). The notion of reintroducing love into accounting education is not new:

“Accounting needs to get beyond the constraints that have been imposed on its language and take up the creative potential of poetry and emotion. The crucial emotion involved in the positive construction of moral identities is, we would suggest, love. We must allow even the excessive language of love to be introduced into accounts and into the narrative constitution of corporate agents” (McKernan & MacLullich, 2004:345).

This paper goes beyond instilling love, for love in itself is abstract. There are several kinds of love that we talk about. Love of money (Huang et al., 2017; Tynaliev & Erdener, 2019) would enhance materialistic and calculative cultures. Thus, we should integrate the greatest love of all with [vocational] accounting education; love of God (in Islam this is known as mahabbatullah). Mulawarman (2008) named this as hyper-love.

To ensure that the [vocational] accounting education should conquer, not just concur to the industrial revolution 4.0, there are several steps that must be taken. First, the bases of education should never abandon the Godliness values in all its courses (not just skills to be taught). For example, in intermediate accounting course where interest calculation is one of the skill that should be possessed by students, the lecturer should bring about discussion about religious view on interest. The discussion should encompass why is interest (riba) is not allowed because of the injustice it brought to the borrower. The calculation could help prove that. The discussion should then be taken to what can be done in practice, for example the introduction of Profit-Loss Sharing (PLS) system.

This being said, the teaching of ethics itself would not suffice. The [vocational] accounting ethics curriculum mainly deals with secular ethics. Students are taught ethics that are based on utilitarianism/theology, deontology, or virtue. In fact, the course leads to the confirmation of utilitarianism as the bases of accounting ethics. Utilitarian ethics is still very much rooted on consequentialism, where the good of the greater numbers are considered the ethical stance taken. Religious ethics are hardly brought up. Ethics according to the accounting International Education Standards (IES) is also for the interest to gain trust in the market. Thus ethics is no longer sacred. It becomes just another means to compete in the market. Only when religious ethics is brought
back to the curriculum, students would behave ethically because of the love to God and their obligation to society.

The key is not the teaching of ethics only but the shifting of the faith of accounting. The self-oriented faith of accounting that is inherent in the accounting discipline must be eliminated (Mulawarman & Kamayanti, 2018b). Accounting is taught as a derivative of capitalistic economy: to obtain maximum gain with minimum effort or expense. Human is seen as rational evaluative maximizer model (REMM) (Jensen & Meckling, 1994) instead of sincere being. This very basic assumption that is filled with egoism has become the cornerstone of accounting discipline that is being taught and in turn form the similar egoistic practice of accounting. Laing & Laing (2016) and Manochin & Cooper (2015) elucidated that the present accounting education is trapped in rationalism and corporate hegemony.

That being said, the learning method must also be constructed into a holistic approach. Lucas (2008) and Saravanamuthu (2015) comes up with a transformative learning to shift students’ paradigm of thinking with playful method. These can be found in the following quotation.

“Play is very important in psychological development and learning. Playing allows us to indulge, to pretend, and try out new ways of thinking without seemingly to involve risk. It allows us to be “wrong” without having much at stake” (Lucas, 2008:393).

“The course’s TL support attributes—including a critical reflective discourse, engagement with emotional intelligence and otherness, a trusting mentoring environment and opportunities to express transforming values – helped learners dilute and/or counter conventional accounting’s disciplining influence, and thereby transform their disorienting dilemmas into expanded consciousness and changed perspectives. In short, the TL pedagogy was employed to replace the didactic transfer of technical accounting with discovery based-learning…”(Saravanamuthu, 2015:33).

From these quotation we can find that Lucas (2008) bears fruits of critical consciousness that enables the students to learn auditing concepts like skeptical judgment without being told to. It can be done by employing transformative learning (TL). Then, Saravanamuthu (2015) recognizes the urgency of countering rationalism with soft skills.

Second, the students must be asked to get into the field of practice, not just in industrial scope, but also in micro and small businesses. Micro and small businesses have greater barrier to enter the market as they lack capital. Students must understand that they should serve the people who are in need as taught in the Quran Surah Al Baqarah verse 177:

“Righteousness is not that you turn your faces toward the east or the west, but [true] righteousness is [in] one who believes in Allah, the Last Day, the angels, the Book, and the prophets and gives wealth, in spite of love for it, to relatives, orphans, the needy, the traveler, those who ask [for help], and for freeing slaves; [and who] establishes prayer and gives zakah; [those who] fulfill their promise when they promise; and [those who] are patient in poverty and hardship and during battle. Those are the ones who have been true, and it is those who are the righteous.”

To be righteous and to be granted God’s heaven is to help those who are in need, not the capitalists. Meanwhile education institutions take prides in having their alumni being taken by multi national corporations as employees. This is claimed as indicator that the institutions prove to be “useful” for industries. A change of paradigm should be triggered to shift labour-oriented into community empowerment/development-oriented education. To ensure its application, this may be proposed as indicators for accreditation requirement.

Beyond that, they must also be immersed in the society where cultures and local values have produced different kind of practices that is more suitable. In existing cases, students are asked to change the local businesses practices into “western” practices. On the other hand, students must be taught history, culture and the practice
springing from those high-cherished values. An anthropological approach (Mulawarman & Kamayanti, 2018a) could be used so that students can devise creatively and critically accounting practices that would suit the local need. It must be realized that there is no “universal” accounting. The “conventional” accounting is derived from the “local” western culture, which through diffusions and institutional powers has become the “generally accepted” accounting principles.

It was Lombardi who recognized that conventional accounting that is devised by the west and ignores the local indigenous context could have “…devastating impact that accounting has had on Indigenous peoples, while accounting can potentially be a tool of empowerment when accounting is “by” Indigenous peoples” (Lombardi, 2016:1320). Craig et al. (2012) took up the challenge and explicaded how a cherished local values in Maori tribe in New Zealand could contribute to alternative way of seeing assets, with its taonga concept. The students must be reminded of the cohesiveness that Indonesian community tends to have, as opposed to individualism that is dominant in western culture. The existence of cooperation, for example, is the proof of business characters for such cohesive community instead of corporations (Chaplin, 2017; Clarke et al., 2019; Ozdil & Hoque, 2019). One approach that has taken up the challenge of looking into each highly cherished values in each culture is Islamic Accounting Anthropology (IAA) (Mulawarman & Kamayanti, 2018b). Developing accounting practice that is suited by specific context would be more beneficial rather than enforcing a western accounting science to be applied. This emphasis in local wisdom is also taught in Islam in the Quran Surah Al Hujurah verse 13:

“O mankind, indeed We have created you from male and female and made you peoples and tribes that you may know one another. Indeed, the most noble of you in the sight of Allah is the most righteous of you. Indeed, Allah is Knowing and Acquainted.”

This means that forcing a culture or way of life to other tribes are not prescribed in the Quran since every region is geographically and demographically different, which sprung from various historical and cultural background. This should apply also in accounting practice. For example, Murabaha, which is now widely known in Islamic banking practices, was originated before Islam was preached. The opportunities to explore ways of accounting practices, that have local values as their roots, are abundant. By ensuring that students realize their religious-cultural values, accounting can be developed according to the local needs.

Third, entrepreneurship must be taught so that students could become the masters of their own businesses instead of mere labors of big corporations. Having sufficient knowledge of accounting would help students to manage the sustainability of their businesses. When students acquired good ethical skills and based their activities as the realization of the love to God then entrepreneurship would be seen not as means to collect capital but as a means of worship to God. Entrepreneurship also means that the alumni of [vocational] accounting education would empower the society where they do business.

Fourth, students must acquire the skill necessary to understand and use information technology. The rapid current of industrial revolution 4.0 is inevitable but it does not mean that we should be managed and controlled by it. The students must also be introduced not just the advantages, but also the disadvantage of industrial revolution (such as the elimination of privacy). This is necessary so students can use the technology wisely. An illustration with satire stance was obtained from a website (see Figure 2) indicating the lack of information technology skill amongst accountants. Accountants know the logic behind accounting process, which make them the best of people to develop accounting algorithm to prepare financial statements in the era of big data. Algorithm must be taught as basis of logical thinking to devise accounting programs suited in industrial revolution. Students must be reminded of the effect of information provided by accounting on human behavior.

Realizing this, academics, practitioners, as well as policy makers should sit down and really ponder on the direction of [vocational] accounting education. Education is not just about “how” a discipline is taught but “what” is taught. A greater effort should be placed to free accounting discipline from over-emphasize from rationalism that leads to calculative culture in utilitarian ethics. The
effort should also include the rethinking of vocational and academics education dichotomy. All these four steps taken, then the [vocational] accounting education will use the industrial revolution 4.0 as tools or support system for their good cause instead of being led by it. The [vocational] accounting education would prepare students to conquer any effort to abandon religious values that the industrial revolution 4.0 carries.

CONCLUSION

This article is started with a critic towards the duality of academic and vocational accounting education. The division and definition of these types of accounting high education have been elaborated in the Indonesian government decree, yet these differences become insignificant in the face of industrial revolution 4.0 as both types are geared towards the industrial needs. Hence, “factory-teaching” university has been the new paradigm. For this reason, I decline to submit to this duality and therefore uses bracket to refer to [vocational] accounting education.

Next, four means of reconstructions have been put forward. These are teaching ethics based on religious values, involving students in reality construction, inducing spiritual-religious entrepreneurship, mastering of information technology, and finally reconstructing [vocational] accounting education curriculum. This paper suggests that [vocational] accounting education should not submit or concur the harsh mechanization of human in industrial revolution 4.0, but to rise and conquer the idea of “Homo Deus” by re-instilling religious values in education as the base of all reconstruction.

The article provides empirical evidence that if educators exert effort at least in the learning process, by instilling religious values in accounting education, be it academic or vocational, transformation could be triggered. This paper highlights [vocational] accounting education, which is rarely discussed in terms of both philosophical and practical issues. Nevertheless, the discussion contained in this article can be practiced in other levels.

NOTE

This paper was presented at the Industrial Revolution for Polytechnic Education (ICIRPE) 2018 held in December 3-4, 2018 at State Polytechnic of Malang, but has never been published elsewhere. However, significant changes have been made since it was last presented.

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