

**KNOWLEDGE AND COMPETITIVENESS, AND EMPLOYEE SALARIES AND BENEFITS IN THE GOVERNMENT: AN ATTEMPT FOR A GLOBAL EXPERIENCE**

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**ABSTRACT**

The paper studies knowledgebase and competitiveness of selected countries from all the continents and finds that countries with lower scores in the above knowledgebase pay higher salaries and benefits to the public sector employees. Their public-private pay gap is also higher. These countries also overstaff their public sector organizations. The paper also studies reporting and financial disclosure of selected nationally important public sector organizations of these countries. These organizations also report and disclose very little. Most of these countries are also found to be faith-based. The study takes UNDP, UNESCO, WIPO and World Bank for knowledge and competitiveness rankings, and budget documents of the respective countries for public sector pay and public expenditures. The study period is 2018-19. The results are mixed, partly consistent and partly inconsistent with the previous literature. One important finding of this paper is that although in macro level (country level) Saudi Arabia, UAE and Chile stand in the middle and upper middle regarding knowledgebase and competitiveness, in micro level (organizational level) disclosure and financial reporting of these countries is very poor.

**Key words:** knowledge, competitiveness, disclosure, reporting and financial statements, public sector, salaries and benefits

**I. INTRODUCTION**

Disclosure of pay is important. There are non-salary benefits in the public sector. In Sri Lanka, during 2017, budgeted total salaries and wages were Rs20224 million and other allowances and travelling expenses were Rs12374 million or 61.2% (Annual Performance Report, 2017). Governments disclose total pay but not the allowances and therefore there is scope for taking excess of these benefits. In Lao, during 2018-19, salaries were 286993 billion kips and allowances 38894 billion kips, or 13.6%. Ministries in all countries disclose enough nonfinancial information. But there is almost no data on financial aspects of the ministry in the developing countries. Only budget data is available

like allocation in primary, secondary and tertiary levels. Executive pay in the developed countries covers pay of head of the organization and senior executives. Pay includes basic pay and perquisites. Perquisites include bonus and contribution to retirement funds. New Zealand Herald, 25 October 2000 (nzherald.com.nz) reported that the heads of most universities received pay increases of 8 to 16% while academic staff had to settle for less than 2%. Most vice-chancellors' salaries increased by \$20000 to \$30000 compared to \$1500 for professors.

Until 2015, government employees did not have to pay personal income tax in Bangladesh. Many government agencies were exempt from corporate tax (profit/surplus tax) resulting overconsumption of perquisites by their management from the excess free cash flow. There is higher interest benefit on provident fund in Bangladesh and Pakistan: employees in the government organizations can put maximum 25% (previously there was no ceiling) of their basic pay in the general provident fund (self-contributed PF). This government-sponsored PF receives 1 to 2% higher interest compared to the market interest rate. Interest-free car loan of TK3 million and a monthly allowance of TK30000 to 50000 which is around 100% percent of basic salary is given to officers of certain positions. There are professorships without PhDs in public universities. Top private universities require PhDs even for Assistant Professorships. In India, Associate Professorships require a PhD. Fringe benefits in Senegal and Nigeria constitute 35% to 100% of basic pay (Mackenzie and Schiff 1991). In the developing countries like Bangladesh, Pakistan, India, and Myanmar where informal sector constitutes more than 80%, there are no such fringe benefits.

There seems inconsistencies between the knowledgebase rankings of countries by UNDP, UNESCO, WIPO, and WORLD BANK with the state of reporting and disclosure of some nationally important public sector organizations. For example, the above global organizations give medium rankings in knowledgebase to Saudi Arabia and Brazil but many important public sector organizations of these countries do not disclose at all. The paper hypothesizes that public sector pay is higher in countries with lower knowledgebase and reporting and financial disclosure. The paper will do the following. Part I gives literature on knowledge and competitiveness from different angles such as philosophy, UNDP, UNESCO, WIPO, WORLD BANK, and governance theories

of corporate and public sector and previous research on knowledgebase and public sector pay. Part II defines the research method. Part III will present the results split into (i) knowledgebase in the sample countries, (ii) pay in the public sector, (iii) state of reporting and disclosure of financial statements in one ministry and its two agencies, and two nationally important public sector organizations of each country. Finally Part IV will conclude on the results.

## II. LITERATURE ON KNOWLEDGE AND COMPETITIVENESS

### Knowledge in Philosophy

*Belief is the beginning of knowledge.* A person begins with a belief about something. When his belief is accepted by his family then it becomes a better belief. This way, when his belief is accepted by his community, country and finally at global level, his individual belief becomes much richer belief and global belief and that can be called knowledge. *Knowledge is revision of belief.* Knowledge comes through revision of belief. Belief may change with the change in time and place. Human beings perpetually change their states of knowledge and belief in response to various other beliefs on a reliable method (Putnam 1996: 223, 229). *Knowledge is justified belief.* Justified belief is also known as well-founded belief, reasonable belief, and belief based on good grounds. Knowledge results from acceptance of belief justified by evaluations (Lehrer 1997: 27). Alston's (1995) definition of knowledge seems more objective where he suggests that knowledge is a belief or reason where there are no other overriding beliefs or reasons to the contrary. *Knowledge is independent reason.* Belief to be knowledge must be supported by independent reason that is reason from unaffiliated persons. A 'culturally specific' or 'rationality in context' are narrower than 'universal rationality'. *Knowledge comes through discrimination.* The law discriminates between accidental and intentional killing. She has an artist's discriminating eye. A fundamental facet of human life is letting things apart, distinguishing predator from prey, or a protective habitat from a threatening one. *Knowledge must be seen.* What is not seen is merely belief not knowledge. Hearing (ear), cognition (sense), smelling (nose), and tasting (lung) will lead a belief to a knowledge (produce or idea) that must be seen. Seeing is more than believing because it finds causes or reasons, consequences, and then comes the task of justifying the belief. Something must be seen to be known. Most of the *sacred scripts* are beliefs not knowledge. All religious scripts

prescribe to reframe from sin and embrace truth. But what is sin and truth and how to reframe from sin or how to embrace truth is not available in the religious scripts. Only general principles of a good life are prescribed. Worshiping, glorifying and fearing God covers the most of the Quran and very common in the Bible and the Tanakh. There are examples of virtues and vices in Bible and Quran. But people around the world are continuously exploring these virtues, vices, good, and bad life in the worldly subjects from accounting to zoology and from primary to university levels. What is right and what is wrong needs lots of analysis.

### **Knowledge and Faith**

*Faith and unreason* restricts growth in knowledge and competitiveness. Man concept is knowledge centered whereas spiritual being is belief centered. Those who follow knowledge depend on human beings for their doings whereas those who follow beliefs rely on customs, fixed values, and spiritual being. Knowledge-making is an interactive process over wider time, place, and person. Whereas, belief is within individual, it is tacit and has not been explicit by verification and comparison. Believers, before doing something, think that some spiritual power will help them in this doing. Whereas, those who work on reason and knowledge depend upon human beings, their capability, and potentiality; trust and beliefs play a secondary role, if any. Those who acquire knowledge try to involve as many people and observations as possible (competitive). Belief culture is within oneself (alienation) but reason and knowledge involve interactions, comparison and verification. A person when working something based on belief only does it believing that she has blessings from spiritual being and what she is doing is probably right. But when you work based on reason, you perform that function not on blessings rather you verify, test and check with others lest you harm to others or do mistakes. A believer is busy in glorifying 'oneness' (monopoly) whereas, a knowledge-seeker is busy in glorifying 'many' (competitive). The former believes in concentration of power (centralized and monopolistic) and the latter believes in dispersion of power (democratic, decentralized, and empowerment). In the belief orientation, your interactions with the society are minimal whereas in the knowledge process, your interactions are wider (large number). Reason closely resembles to humanity as against spirituality whereas belief more closely resembles to

spirituality as against humanity. Humanity is a plural concept and spirituality is a singular concept. Fixed beliefs do not accept flexibility and contrary behavior but reason and knowledge encourage and nourish contrary behavior and ideas. Humanity (knowledge) promotes critical thinking whereas spirituality avoids criticism. A believer considers the destiny as fixed (lack of choice) so he is likely to experiment less. A knowledge-seeker considers the destiny that can be changed and therefore looks after new issues and experiments (choice and innovation). A knowledge-based person is more a global citizen, accommodating with different cultures whereas a faith-based person sticks to a strict religious and cultural identity.

Reasoning is a justification and evaluative process. Although there can arise conflicts, anxieties, and differences in this evaluative process, the alternative to reasoning and justification, i.e., fixed belief and non-evaluation is not good for human because this does not revise our false beliefs. If you stick to fixed beliefs and faith rather than epistemically justified beliefs, your association, activities, feelings are involved with spiritual being rather than with human beings. Consequently, human aspect is largely ignored. Since the intensity of your interactions with man is low in a faith-based society it can result in distance, misunderstandings, and conflicts. In this process you behave on the basis of whims and emotions rather than evaluation of these whims and mood, and imagination of emotions. As a result, your behaviors and dealings with different people will be different (inconsistent). Whereas, if you perform according to knowledge, i.e., justified beliefs, then you try to make things consistent. You use reason, evidence, and try to explore the world; you learn the people and their history. In a faith system you miss men, their history, glories, potentials, and their imperfections.

Prayer is an integral part of a faith-based society. What do we pray? In regular prays, we say for things-various desires mainly for self and families. For getting something, man has to know, plan, labor, interact, and then earn it. In prayer on the other hand, we look for things to be given, and as a result, this culture may ignore merit, performance and labor required for earning the things. In philosophy, desires are causes of unhappiness. Art and literature do not support crave for things. Theory of competition in economics does not allow getting things by privilege, linkage, and blessings.

**Knowledge and Competitiveness: UNDP, World Bank, WIPO, UNESCO**

UNDP prepares global knowledge index based on seven broad areas such as pre-university education, technical and vocational education, higher education, research, development and innovation, information and communications technology, economy, and general supportive environment. These areas are broken into 199 indicators. These indicators capture all aspects of modern human life. World Bank prepares competitiveness ranking of countries based on enabling environment in institutions, infrastructure, ICT adoption, macroeconomic stability, markets, human capital, innovation and business dynamism, and higher education. World Bank also ranks government effectiveness based on quality of public services, civil service and its degree of independence from political pressures, policy formulation and implementation, political stability, regulatory quality, rule of law and control of corruption. World Intellectual Property Organization (WIPO) ranks innovation by intellectual property rights, patents, technology transfer, R&D, labor productivity, mobile phone app creation, and high-tech exports. UNESCO ranks universities and scientific books published around the world.

**Competitiveness by Corporate and Public Sector Governance***Independent nonexecutive members in the boards*

The role of independent nonexecutive directors (NEDs) in corporate governance has been well appreciated around the world. Corporate boards around the world nowadays are composed of executives who are an organization's internal and nonexecutives who are its external. NEDs do not take part in day to day activities of the company, they attend company board meetings usually once or twice in a month and particularly look at the strategic issues including if the executives are taking good care of the shareholders' money. NEDs are usually distinguished lawyers, university teachers, social workers, and other intellectuals of independent mind who must be free from any undue influence from management. The Cadbury Committee Report 1992 in UK, and institutional shareholders' associations both in UK and US require every stock exchange listed company to have NEDs in its board and importantly, the remuneration and audit committee consists mainly of NEDs. Even the chairman of the board is an outside NED.

The HM Treasury and the Cabinet Office has designed a code of good practice called corporate governance in central government departments in July 2011 (originally 2005). Each department board (ministry) must have at least four nonexecutive members appointed by the Secretary of State with the Cabinet Office guidelines. Nonexecutives must have experience in managing complex organizations with strong commercial expertise. They look at the accountability of permanent secretaries, mechanisms for assessing their performance, strategy and deliverability of policies, financial management, internal control, and allocation of resources. As a last resort, if nonexecutive board members judge that the permanent secretary is an obstacle to effective delivery, they will be able to recommend to the Prime Minister and Secretary of State and Head of the Home Civil Service that the permanent Secretary should be removed from his or her post.

The inclusion of independent outside experts in various committees seems more important in the public sector compared to corporate sector. In the corporate sector, there are institutional shareholders who have large stakes in the companies and therefore, have higher incentives to monitor the management. But in the public sector, such an incentive for monitoring is largely absent. Also, shareholders in the corporate sector can simply 'exit' by selling their shares if the share prices are not satisfactory. Thus unlike the corporate sector, ministries and other government organizations do not have many control mechanisms available for pursuing the management for working in the citizens' best interests. Therefore, inclusion of independent outside experts is a little hope left for good governance in the public sector.

#### *Financial statements and disclosure*

Financial statements such as income statement, balance sheet, and cash flow statement are essential to understand the performance of management of any organization both in the private and public sector. Analyses of financial statements can reveal income and expenses happen efficiently, resources are allocated properly, transactions are performed independently, and management performs for the greater interest of stakeholders rather than for opportunistic self-interest. International Public Sector Accounting Standards (IPSAS) made financial statements mandatory for public sector organizations. There are specific regulations in the developed countries as to the disclosure of employee

salary and benefits in the corporate sector as well as in public sector. An income statement gives comparative figures over years of income and expenses. Management can take benefits from many of the expense categories such as traveling, rentals, office expenses, research and development, and advertising. Management particularly the executives may use the various government and nongovernment grants for their personal benefits. There are also ample scopes for taking benefits from purchase and lease of assets, purchase of inventories, various investments activities, and payment of trade and payables.

*Public Accounts Committees* (PACs) are unable to discuss audit reports promptly-there are long time lags between years of accounts and timing of discussion of an audit report. The recommendations of PACs are either redundant, time-barred or irrelevant (Akram 2019). Audit Report Implementation Committees (ARICs) have not been formed in many ministries in Africa. Yearly reports about the follow ups on the status of recommendations had not been done (Pimpong 2018). In UK, India and Canada, an MP from the main opposition party chairs the PACs. On average PACs hold about 50 meetings in a year in these countries (World Bank 2005). The reports of the PACs of the developed countries including Australia, New Zealand and Canada are available online (browse PACs of the respective countries). UK PACs submitted 57 reports in 2008 on various issues, on average 3 to 6 reports in a month (House of Commons). Bangladesh PAC on average discussed 20 reports of the Comptroller and Auditor General (Office of the Comptroller General, 2021). India, Sri Lanka, and Philippines PACs reports are available online. Thailand, Vietnam, Indonesia, Bangladesh, Nepal, Myanmar, Cambodia, and Laos PAC reports are not available. Bangladesh PACs are chaired by the government MPs. South Sudan and Tanzania have 11.7% and 20% members from opposition parties respectively in the PACs (Pelizzo and Kinyonde 2014). Magrane and Malthus (2010) has explained in detail about *audit committee* both in the public and private sector. Government Accountability Office (GAO), the Sarbanes-Oxley Act 2002, Government Finance Officers' Association, Office of the Management Budget and Institute of Internal Auditors in USA encourage all public sector entities to establish audit committees. Chien et al (2010) studied 154 big public hospitals and found audit committees associated with better internal control, lesser financial distress, financial reporting, proper billing and

collection procedures, documentation, and compliance of laws, regulations, and contracts. Canada has a departmental audit committee started in 2006. Financial Administration Act 1985 stated that independent audit committee members shall not be any government officers.

### **Public Sector Pay**

Campos et al. (2017) studied wages per employee before tax of public and private formal sector in 28 EU countries and concluded that noncompetitive environment in which the government sector operates is at the root of higher earnings enjoyed in the public sector. Most of the public sector has monopoly. Government provides higher pay to civil service to participate in vote producing activities Schiavo-Camp et al. (1997) reveals that government employment size depends on population size (negative), per capita income (positive), and government wages relative to per capita income (negative). This study suggests for civil service reform in South Asia where there is overstaffing. During 1990s, average central government wage as multiple of per capita in OECD was 1.6; in 1980s it was 1.7. Government wage has declined from 1980s to 1990s internationally except in Asia where it increased from 2.9 times to 3.8 times (Schiavo-Camp et al. 1997). Uganda public sector employment and pay reform in 1990s involved increase of pay, reduction of the number of ministries, and reducing staff. Burkina Faso civil service wage was 12 times of per capita income in 1994, the average in Africa was 5 times. In South Asia, public sector wage times per capita income was 7 in India, 4 in Thailand, 2.8 in Philippines and less than 2 in Sri Lanka, Vietnam, Pakistan, Indonesia, and Myanmar (Schiavo-Camp et al. 1997, Lokshin and Glinskaya 2007). Average wages and salaries during 2000-16 as a percentage of total expenditures were from 27.1% in Bahrain to 43.6% in Iraq (IMF 2018). Clements et al. (2010) showed government compensation as a percentage of expenditures during 2000-08 was 25.4% in European Union, 28% in high-income countries, 31.8% in middle-income countries, 25.8% in low-income countries. Average public administration wage to GDP per capita was 1.3 times in European Union, 1.2 times in high-income countries, 1.4 times in middle income countries, 1.9 times in low-income countries. During 2016, employee compensation as a percentage of revenue was 29.4% in Cambodia, 30.9% in Indonesia, 33.8% in Lao, 17.4% in Myanmar, 30.9% in Thailand, and 23.1% in OECD (OECD/ADB 2019).

In Saudi Arabia, average monthly wages and salaries in the public sector was SR11095 and SR6210 for the country or 1.79 times (General Authority for Statistics, 2018; and Saudi Gazette January 18, 2021). Budget 2020 shows SR504 billion public sector pay out of total expenditure of SR1020 billion or 49%. Middle east including Iran, Afghanistan, and Pakistan on average spent 28% of total expenditure for civil service employees, United Arab Emirates spends the lowest in this region, 14%, OECD spend 22% (IMF 2018). South Africa spends 34.4% of total expenditure on public employee compensation (Budget 2019). World Bank (1988) studied government pay in developing countries. In Liberia, Government wage bill rose 36% of revenue from 1977 to 66% in 1981, from 34% to 49% in Rwanda from 1979 to 1981, and in Central Africa it gone down from 79% in 1976 to 59% in 1984. In South America, public sector pay as a percentage of total public expenditure was 27.5% in Brazil, 24% in high income countries, 27% in middle income countries, and 15% in low income countries (World Bank Group (2017).

Worldwide, public sector wage is higher than in the private sector at all professions except high level managers and professionals. But government cannot give premium wage to the skilled professionals because of equity consideration on the one hand and burden on the taxpayers on the other hand. In reality however, this may not be true particularly in the developing countries where high level professionals have concentration of power which may bring some extra hidden benefits. In US, 84% state and local government employees have access to defined benefit pension compared to 21% of private sector employees. By contrast, the private sector relied heavily on merit-pay, pay for performance, bonuses, profit-sharing, and share-related benefits. In this sector pension is mostly defined contribution. Public employees receive increasing fringe benefits over wages because the costs are less transparent to the community (Reilly 2013). They are compensated for two services: public services and political services. Politicians use public employment for redistributive purposes directing income towards disadvantaged groups. Another theory is that union density in the public sector is high. Average public-private gap in life time career pay is close to zero in several major European countries such as Germany, France, and UK (Postel-Vinay 2015, Giodano et al. 2011). But there are pay differences in favor of public sector for female workers in education and public

administration rather than in the health sector at the bottom of the wage distribution in countries like Greece, Portugal, Ireland, Italy and Spain (Giordano et al. 2011). Public sector jobs are typically more stable that explain a large share of the private-public pay gap.

Government effectiveness (governance indicators) which proxies for the institutional quality of the public sector, is negatively related to the wage gap (Campos et al. 2017). Top pay compared to the average pay in the public sector is widening like in the private sector in UK (House of Commons 2009). The report suggests for greater transparency as to the top pay particularly an independent pay commission and detailed disclosure of information in line with the corporate sector. Individuals paid more than BPS150000 would have their names and salaries published. In India, the difference is high, public sector premium ranges between 62% to 102% over the formal private sector, and between 164% and 259% over informal-casual sector depending on methodology. The difference is higher in rural compared to urban areas, and higher among women than among men. The difference is higher for low-skilled workers. And the difference is increasing between 1993-94 and 1999-2000 (Azam and Prakash 2010).

### **III. METHOD**

The study covers developed countries UK, USA, Australia, New Zealand, and Canada, South Asian developing countries, medium knowledgebase South Africa and low knowledgebase Ethiopia from Africa, higher competitive Saudi Arabia and UAE from the Middle East, middle knowledgebase Brazil and higher knowledge base Chile from South America. Germany and France were tried but excluded for language problem. The study is based mostly on 2018-19 time period. Annual reports and other published documents such as budget documents, website information like organization structure, internal memos, and circulars were consulted. Only published data do not show the real picture of an organization. Visits, observations, meetings and discussions are also important. What is written, what is done, and how is done may not be the same in quality. Office design, its getup, cleanliness, employees' sincerity, their dresses and quality of their words give signals about their organizations. Activities of the employees were carefully observed at different time period.

Knowledgebase rankings of countries are taken from UNDP, and competitiveness and government effectiveness from World Bank. Public sector pay and total government expenditures are available in the budget document of the respective countries. In some cases budget documents or economic classification of public expenditures (salaries and benefits) are not available online, then studies of prior research were used. Public and private sector pay gap was found by browsing 'public-private pay gap' in the respective countries. Since these are popular topics various websites publish these figures. However, utmost care was taken to verify among the website results. To assess the size of public employment, the paper uses number of income taxpayers per employee in the tax department. Data on goods and services tax and tariff payers are not available for most of the countries. Number of taxpayers and total number of employees in the tax departments of the respective countries have been taken from tax departments, Wikipedia, and browsing 'taxpayers in the countries'.

The paper covers three broad samples: (i) the countries, (ii) for each country, one ministry-the ministry of education and its agency-the university funding council, and the largest public university, (iii) for each country, two nationally important organizations noted for governance, accountability, and transparency-the supreme audit institution and the tax department. The highest ranked public university has been selected believing that it would disclose the most. The reason for selecting the ministry of education and its above agencies is that these organizations are not for profit organizations. There is a misconception particularly in the developing countries that not for profit organizations are not required to disclose detailed financial statements. But in the developed countries this belief has changed and many of them disclosed detailed financial statements like in the corporate sector. Since the purpose of the work is to see the spillover of knowledge particularly financial reporting and accountability in the public sector organizations it has selected ministry of education and its related organizations. It did not choose other ministries which perform commercial activities because their agencies and departments work like corporate sector where financial reporting and disclosure is similar to that of corporate sector. For example, ministries of industry, finance, housing, and others operate more or less like the corporate sector all over the world where there is some financial reporting and disclosure. Another reason to choose ministry of education is that

it has more knowledgeable people because it deals with information and knowledge in the national and international context. There are exchange programs among countries on primary, secondary and higher education levels. There is supposed to be higher integration among countries in this sector than in other sectors. Knowledge creation and dissemination is the major purpose of this ministry and its agencies and departments. The study expects higher disclosure of information in these sectors. Annual reports of the organizations were the main data source.

#### **IV. RESULTS**

##### **Knowledge-base**

Developed countries UK, USA, Australia, New Zealand, Canada, European countries Germany and France rank the highest in knowledgebase (including competitiveness and government effectiveness) with ranks from 1 to 25. Then come Middle-Eastern UAE with ranks 20 to 25. South American Chile ranks 30 to 44. In South Asia, India, Sri Lanka, Thailand, Philippines, Indonesia and Vietnam rank in the middle around 60 but Bangladesh, Pakistan, Myanmar, Lao and Cambodia rank above 100. Brazil and Saudi Arabia rank in the middle with scores around 65 (Table 1).

The developed countries do not have a religious ministry. Brazil, Chile (and most of South American countries), South Africa, and Ethiopia (and most of African countries) do not have any ministry on religious affairs. In South Asia, Bangladesh, Indonesia, Sri Lanka, Pakistan, Myanmar, and Cambodia have a separate ministry for religious affairs (faith-base). But the better performing countries (in terms of combined knowledge, competitiveness, and government effectiveness) Sri Lanka and Indonesia spend the lowest 0.02% of total expenditures compared to 0.20% in the low performing countries Bangladesh, Pakistan, Myanmar, Lao, and Cambodia (Chowdhury 2020). Middle Eastern countries have religious ministries. Their rankings in knowledgebase stand at the lower-middle stage globally. Their research and development expenditures are lower compared to knowledge-based countries. In terms of percentage of GDP it is 0.1% to 0.5%. The United Arab Emirates is an exception which does not have a religious ministry and its knowledge-based performance is similar to the developed countries (ranking within 25). Its R&D is the highest in the Middle

East at 0.7% of GDP (Wikipedia 2019). Its innovation (patents, technology transfer, R&D, high-tech exports, etc.) ranking is also the highest in this region which is 34 whereas others' ranking ranges from 66 to 87 (WIPO 2019). UNESCO (2017) shows Saudi Arabia has four universities among the world's top 500 universities, and Iran and UAE with two. As per scientific books published, Iran ranks 5 and Saudi Arabia 54. However, most of the researchers in Saudi Arabia were attracted from international community (Wikipedia). Is religion important? Wikipedia (2019) shows Iran, UAE, and Saudi Arabia with 27%, 8%, and 7% people respectively who do not think it is important whereas in many South Asian countries it is 0 to 2%. This perception study result will have to be taken with caution however, because religion has different meanings (one meaning is duty) to different people (Chowdhury 2020). Thus although the Middle East has religious ministries (established in 1993 in Saudi Arabia and also includes nonprofit sectors), many of them has some knowledgebase, competitiveness and government effectiveness (Wikipedia 2019). UK also has a minister for faith and communities under the ministry of housing, communities and local government. The minister works with religious and community leaders to promote faith, religious tolerance, and stronger communities within the UK. No separate and individual portfolio is found in the ministry however for faith and no separate budget is disclosed. Its main programs are communities, race equality, and integration. In US there is an office of international religious freedom under the secretary for civilian security, democracy and human rights. It monitors and combats anti-Semitism.

[Table 1 here]

### **Public Sector Wages and Salaries**

Higher knowledgebase countries UK, Canada, US, and UAE give lower pay in the public sector up to 20% of total government expenditure whereas low knowledgebase countries in South Asia, Africa, Middle East, South America pay more than 20%. There are some mixed results for example, Pakistan and Nepal with low knowledgebase pay lower. Thailand, Philippines, Vietnam, South Africa, Brazil, Saudi Arabia, Chile being in the middle ranking pay higher. Again Australia and New Zealand ranking higher pay higher. Countries ranking poorly in knowledge, competitiveness and government effectiveness appear to have higher employee salaries and benefits in the public sector (Table 1). Higher gap

in pay between the public and private sector also indicates the lower knowledgebase because most of the labor force is employed in the private and informal sector. Further, tax offices in these countries are over-staffed except India, Indonesia, Sri Lanka and Philippines. They take pay at 20% to 30% of total government expenditure. As regards Pakistan, there are discrepancies in data between government and the IMF. Table 1 also shows that public sector per capita salaries are much higher than in private sector salaries and average salaries in the low knowledge-based countries. In South Asian countries it is 2 to 4 times whereas less than 2 times in the developed countries. According to OECD (1994), substantial remuneration discounts for public sector exist in France, Germany and UK. The studies however did not consider the life-long remuneration like retirement benefits.

[Table 2 here]

### **Three Public Sector Organizations: Ministry of Education, Higher Education Authority, and the Largest Public University**

#### *Ministry of education*

Minister and Secretary's reports are signals of knowledgebase in their organizations. Their reports disclose the strengths, weaknesses, threats and potential opportunities in their organizations. Reports contain strategic issues, missions, and visions of the organization and the management. The UK Department of Education minister's report is two-pages long describing the salient features of performance during the year. The permanent secretary's report is 3 pages long. The report highlights performance over the past year, the idea of value for money, new strategies, lessons from previous periods, weaknesses, and new programs. The Department of Education has an executive management board. Chief Executive chairs the executive management board. He is appointed by Civil Service Commission on merit basis. He reports to the permanent secretary via the director general for education standards. Corporate governance arrangements are followed. Both private audit firms and government audit office conduct audit in the public sector. There is a risk and audit committee constituted with two independent members. The members are appointed through open advertisement and they must have accounting, auditing, risk, business, and international experience.

Australia established an audit and risk committee in 2003 to assist the Secretary of the Department regarding financial management. There is a Financial Management Act 1994 requiring each public sector agency to appoint an audit committee to oversee and advise the public sector agency on matters of accountability and internal control affecting operations of the agency. Four independent members and two executive (internal) members are appointed by the Secretary. Secretary and chief financial officer shall not be members of the committee but can attend committee meetings. New Zealand has the Crown Entities Act 2004 similar to that of Australia. USA prepares statement of net costs (revenue minus costs) and changes in net position instead of income statement and changes in equity. The department's response to the independent audit report is half page long with an acceptance of the report and informing that concerned offices will be informed about the report for taking corrective actions. Canada has no ministry of education at federal level but there is at provinces level. Ministry of Education in British Columbia and Ontario provinces ministry of education do not publish financial statements. Only two lines income statement for schools is available in the annual service plan report. There are operating expenditures and capital expenditures summaries.

In South Asia, only Sri Lanka ministry of education discloses detailed financial statements. Others do not publish their financial statements in their annual reports. Minister's report in Bangladesh is one page and Secretary's report is half-page, of that half is political (praising the Prime Minister) and half is ministry related. Most of the reports are written in objectives term rather than specific terms. Minister's report has inconsistent ideas like 'to grow our new generation in the context of global environment' and 'to develop madrasa education for upholding Islamic values'. Nothing was said on performance over the previous periods, new strategies and programs undertaken, and weaknesses of the year. There is no trace of an audit committee. In Thailand, secretary's report is a thanks giving half-page report. Cambodia minister's report contains achievements, strategic and challenging issues but in general terms without any specificity. Director General's report is just a thanks giving quarter page write-up. In Nepal, minister and secretary's reports do not have a single figure in monetary and quantity terms.

Ministries of Education websites in Brazil and Chile do not publish minister's report and financial statements. South Africa Department of Basic Education has a standard corporate type annual report with three-page forward by the minister and deputy minister, The department discloses budgeted and actual expenditures, a government audit report, an independent audit committee and its report, and finally detailed financial statements. But Ethiopian ministry does not disclose these information at all. Ministries of Education websites in Saudi Arabia and UAE do not publish their financial statements. Ministers also do not have a report here. However, there are education related information.

*University Grants Commission/University Funding Council*

In UK, Australia and New Zealand there is split off of the positions of Chairman and CEO, audit and risk committee, and disclosure of executive remuneration which are the important regulations of corporate governance around the world. The report of the CEO of (Higher Education Funding Council of England (HEFCE) "The issue of the vice-chancellor's pay has been the subject of much debate in recent months. HEFCE is not legally empowered to tell a university how much to pay its staff, nor the terms of its employment contracts, but we can and do investigate governance issues arising in the providers we fund. Last year we published updated guidance on severance pay and remuneration of senior staff." These strategic ideas are not available in the other parts of the annual report and therefore CEO's report is very important. In India, the University Grants Commission annual report 2017-18 gives various financial statements. Balance sheet shows various funds like capital funds and endowment funds, restricted or unrestricted, movement of their balances. From balance sheet we know loans, advances, and deposits, and their quality. Income statement shows various grants and subsidies received among others; expenditures like staff salaries and benefits, grants and subsidies given, administrative and general expenses, transportation expenses, repairs and maintenance among others. Notes to the financial statements show total salaries and benefits but not for executives separately. CAG audit report did not find serious irregularities other than accounting treatment of some minor income and expenditure items and fund unspent. In Bangladesh, UGC Annual Report 2018 has a Chairman's report which is only half page long with almost no strategic issues and specific data. It does not prepare financial statements which are the main sources of measuring

an organization's performance. Internal audit (not CAG report) shows audit objections involving TK8970 million out of total objections involving TK303262 million, around 3%. Audit objections are mentioned only for two items-advances and general and no details are available. India and Sri Lanka counterparts have their financial statements and CAG audit reports.

USA, Canada, Indonesia, Thailand, Vietnam, Cambodia, and UAE do not have a different agency for universities and higher education. Department of Education (ministry) USA has a higher education department. In Canada there is no ministry or department of education at federal level. The federal government has delegated this responsibility to the territorial governments which cooperate with the provinces to deliver postsecondary programs. Alberta has a Ministry of Advanced Education. Vietnam Ministry of Education and Training has a department called Tertiary Education Department. In Indonesia there is a separate ministry called Ministry of Research, Technology and Higher Education. Thailand Ministry of Higher Education, Science, research and Innovation has a Higher Education Commission which is a department level agency with a secretary and a deputy secretary. This commission is not a separate independent agency. Cambodia Ministry of Education, Youth and Sports supervises higher education institutions. Public higher educational institutions, in terms of financial management, also come under the Ministry of Economy and Finance. The Supreme National Council of Education supposed to be established has not materialized yet and it is not yet decided whether this will be separate from the ministry.

### *Public universities*

Oxford University (UK), ANU (Australia), University of Auckland (New Zealand), University of Michigan (USA) and University of Toronto (Canada) disclose financial statements as per international accounting standards. Oxford is the oldest public university that receives only 8% of its fund from the government. The largest portion, 26%, comes from charities, foundations, research councils, trusts, and industry. And 14% comes from tuition fees. Vice-Chancellor's report is 2 pages long highlighting (i) strengths over other international universities, (ii) threats, (iii) new major initiatives, (iii) comparison with the past, (iv) new programs, (v) major donations from philanthropists and the purposes, and (vi) major successes. There are regulations like Ministerial and

other Salaries Act 1975, Ministerial and Other Pensions and Salaries Act 1991, and Financial Reporting Manual (FRM) 2018-19 under Government Resources and Accounts Act 2000. Senior Civil Service (SCS) Remuneration Committee chaired by the Permanent Secretary and members from the Leadership Team. Members of the Leadership Team are appointed by the Permanent Secretary with the agreement of the Prime Minister. The Permanent Secretary's pay is set by the PM on the recommendations of the Permanent Secretaries Remuneration Committee, a sub-committee of the SSRB. Remuneration report provides salary, bonus and pension for CEO, staffs, and nonexecutive members of the board. It also includes compression ratio between the CEO and median salary of the staffs. The board is composed of 15 executives and 5 nonexecutives. Financial statements give a comparative picture over years of management performance in managing expenses and income of the organization and handling assets and liabilities. These demonstrate financial results and accountability of the management. Many of the items are related to remuneration and benefits if not directly salaries, for example travelling expenses, training, rentals, research and development, office costs, audit fees, purchase and lease of assets. The university discloses financial statements: Consolidated Statement of Comprehensive Expenditure (with expenditures and income), Consolidated Statement of Financial Position (with assets, liabilities and taxpayers' equity or fund balance), Consolidated Statement of Cash Flows, and Consolidated Statement of Changes in Taxpayers' Equity.

Delhi University (India), University of Colombo (Sri Lanka), and Universitas Indonesia (Indonesia) disclose financial statements; Dhaka University (Bangladesh), Mohidol University (Thailand), and Vietnam National University (Vietnam) do not disclose financial statements but disclose some revenue, expense, and asset items. Dhaka University annual report starts with a preface from the Vice-Chancellor. It states how the report has been prepared, and who helped this process. Nothing is there about the performance of the university compared to past or compared to other universities, strengths and weaknesses of the year, strategies, new plans and programs.

King Abdulaziz university does not public its financial statements in its 224 pages annual report. UAE University VC's report has two nonfinancial information and short unclassified financial statements without notes. In South

America, Brazil's University of Sao Paulo CEO report gives three-non-financial information but no financial information. The Annual Report 2019 has information on total assets, and four types of revenue but nothing on expenditure, and there are no financial statements. Universidad de Chile and Addis Ababa University of Ethiopia do not disclose financial statements or any report from their rectors. Table 2 shows that the heads of the three public sector organizations disclose very differently in their annual reports. In the developed countries they present more financial and nonfinancial information than in the parts of the world. Also, their annual reports disclose detailed financial statements.

[Table 3 here]

### **Two Nationally Important Public Sector Agencies: Supreme Audit Institution and the Revenue (tax) Office**

Financial statement (statement of operations, statement of financial position, cash flow statement, and statement of changes in equity, together with all notes) are available in their annual reports online for UK, Australia, New Zealand, and Canada for the supreme audit institution and the revenue office, the two nationally most important public sector institutions (for Canada, not from annual reports but from independent auditor's report on office of the auditor general). Their boards have majority members as independent members. Australia and New Zealand do not have independent members in their boards but they have an independent audit and risk committee composed of independent members with professional accountancy qualifications. Australia has Public Governance, Performance Accountability Act 2013 and Canada has Financial Administration Act. In South Asia, only Indonesia was found to have its financial statements available online. Its Board has two professors and 6 PhDs out of nine members. However, its revenue office's revenue and expenditure account came only with five lines and its balance sheet is irregular. Philippines revenue office has its income statement and balance sheet published online but its board does not have any independent members. India's CAG publishes Union and State finances and appropriations but not its own statement of operations and balance sheet. The boards do not have any independent nonexecutive members,

In the Middle East, supreme audit institution and revenue office annual reports are not available online. The Tribunal de Contas da Uniao, the Brazilian supreme audit institution does not public its annual report and financial statements. Same is true with Receita Federal do Brazil (revenue office). Contraloria General (supreme audit institution) and Internal Revenue of Chile Service have no data online. South African Auditor General and Revenue Service both have independent nonexecutive members in their management and audit committees. They also disclose corporate-type financial statements. Auditor General in addition discloses executive remuneration. Ethiopian counterparts do not disclose these at all.

## **V. DISCUSSION AND CONCLUSION**

Countries with lower knowledgebase give more wages and salary benefits to government employees compared to countries with higher knowledgebase. Lower knowledgebase countries also have lower competitiveness, government effectiveness, and lower disclosure of financial statements. Nationally important public sector organizations-supreme audit institution and tax office do not disclose financial statements in their annual reports. The reports of the Heads of these organizations also are written in the text-form in general terms and without specificity. But in the knowledge-based countries the reports are written in specific terms with full of numbers both financial and nonfinancial. The results are mixed however. Pakistan and Nepal with lower knowledgebase pay lower for public sector, and Australia and New Zealand with higher knowledgebase pay higher. One important finding of this study is that although in macro level (country level), Saudi Arabia, UAE, and Brazil rank in the middle as regards knowledge and competitiveness, in the micro level (organizational levels), their reporting, financial disclosure and accountability are very poor. Again, South Africa with middle ranking in knowledgebase in the country level and also with corporate-type standard reporting and financial disclosure in the organizational levels overcompensate its public sector employees. IMF results of lower salaries in low-income countries are not fully supported in this study because many low-income countries with lower knowledgebase have higher public pay. High-income countries in recent times in the study spend less for public pay which is inconsistent with Clements et al. (2010) which found higher public sector pay in 2000-8. Budget transparency findings of Chile with higher

score are inconsistent with this study which finds no data on budget from the government websites.

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### List of Tables

**Table1. Knowledge, Competitiveness, and Government Effectiveness in Sample Countries**

	Knowledge	Competitiveness	Gov	MORA
Developed countries	<20	<25	<21	No
South Asia	>100	>100	>100	Yes
India, Sri Lanka, Indonesia, Vietnam, Thai, Phil, Viet	53-87	40-84	62-98	No (but Indo and SL)
South Africa	71	60	61	No
Ethiopia	132	108	135	No
Saudi Arabia	42	36	65	Yes
UAE	15	25	24	No
Brazil	68	71	106	No
Chile	44	33	34	No

Source: UNDP, UNESCO, WIPO, World Bank

Gov= government effectiveness

MORA=ministry on religious affairs

**Table 2. Public Sector Wages and Salaries, Total Public Expenditure, Revenue, Public-Private Pay Gap (times), Registered Taxpayers per Employee. Amounts are in Billion of the Respective Countries' Currencies.**

Countries	WS	TE	TR	PPPG	TPPE
Bangladesh	886	4413	3778	2.48	296
%		20.1	23.5	23.5	
India	3562	21470	15157	3.5	707
%		16.6	23.5		
Pakistan	1238	7295	6315	1.49	139
%		17	19.6		
Indonesia	347500	2095725	1822400	2.92	598
%		16.6	19.1		
Sri Lanka	830	2903	2218	3.81	575
%		28.6	37.4		
Nepal	119	831	610	2.11	448
%		14.3	19.5		
Lao	10500	32402	21220	1.25	42
%		32.4	49.5		

<b>Countries</b>	<b>WS</b>	<b>TE</b>	<b>TR</b>	<b>PPPG</b>	<b>TPPE</b>
Cambodia	7863	25765	19787	1.13	56
%		30.5	39.7		
Myanmar	1989	9703	7896	1.62	n/a
%		20.5	25.2		
Thailand	859	3050	2500	1.15	165
%		28.2	34.4		
Philippines	1074	3408	2850	2.19	1579
%		31.5	37.7		
Vietnam	359	1616	1417	1.91	254
%		22.2	25.3		
UK	132	906	745	1.09	557
%		14.6	17.7		
Australia	165	675	700	1.05	1447
%		24.4	23.6		
New Zealand	23.7	111	110	1.35	698
%		21.4	21.5		
Canada	51.1	332.6	313.6	1.25	692
%		15.4	16.3		
USA				1.83	1924
%		15			
South Africa	639	1954	1584	1.42	327
%		32.7	40.3		
South African DC		>34			
Middle East		40		n/a	n/a
UAE		14		1.23	n/a
Brazil		27.5	32	1.29	1310
Chile		25		n/a	n/a

WS =wages and salaries including pension in billion, TE =total government expenditure in billion, TR = total revenue in billion, PPPG= wages and salaries per capita in the public and private sector (times), TPPE = income taxpayers per employee from tax departments  
 Canada PPPG from Mueller (2000)

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UAE PPPG: Arab Center for Research and & Policy Studies (2012) Discrepancies in Public and Private Pay in Jordan, Qatar, and UAE, February; employees 258

**Table 3. Ministry of Education: Minister/Secretary's Report; UGC/UFC= Chairman/ Commissioner's Report; Universities: Vice-Chancellor/Director's Reports, 2019-2020. First Column is for Non-financial information (NFI) and Second Column for Financial Information (FI) in Numbers. FS is for Financial Statements. Only those Countries are shown which have some Data.**

	Ministry			UGC/UFC			University		
	NFI	FI	FS	NFI	FI	FS	NFI	FI	FS
UK	4	8	yes	4	5	Yes	5	3	yes
USA	8	3	yes	n/a	n/a	n/a	8	3	yes
Canada	2	5	part	n/a	n/a	n/a	0	3	yes
Australia	5	4	yes	1	7	Yes	12	0	yes
New Zealand	0	5	yes	1	3	Yes	26	6	yes
South Africa	7	0	yes	9	0	Yes	4	0	yes
Brazil	6	0	no	n/a	n/a	n/a	3	0	part
Chile	na	na	no	n/a	n/a	n/a	0	0	no
UAE	na	na	no	n/a	n/a	n/a	2	0	part
India	na	na	no	0	0	Yes	4	1	Yes
Bangladesh	0	0	no	0	3	No	0	0	Part
Indonesia	0	1	no	n/a	n/a	n/a	0	2	yes
Sri Lanka	0	2	Yes	9	0	Yes	0	3	yes
Vietnam	4	0	no	n/a	n/a	n/a	8	0	no
Thailand	na	na	no	n/a	n/a	n/a	7	0	part

UGC/UFC/CHE=University Grants Commission/University Funding Council/Council on Higher Education/Tertiary Education Commission/Tertiary Education Quality and Standards Authority/Higher Education Commission

n/a=not applicable, na=not available

Dhaka University: Budget document which is not available publicly has one page report by the Pro-Vice Chancellor that contains 6 monetary figures and 1 non-monetary figures

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**Dhiman Chowdhury** is a Commonwealth Scholar with a Ph.D. in accounting from Lancaster University (UK) and a CMA qualified from the Institute of Costs and Management Accountants of Bangladesh. At present Dr. Chowdhury is a Professor at Dhaka University. He also taught at Chittagong University in Bangladesh, Sultan Qaboos University in Oman, University Sains Malaysia in Malaysia, Ritsumeikan Asia Pacific University in Japan, and TUI University in USA. Professor Chowdhury has four books to his credit. He has published in Bangladesh, India, and USA. He has examined some PhD theses from home and abroad. Professor Chowdhury is the Associate Editor of the Dhaka University Journal of Business Studies.

