Navigating the next Industrial revolution: Future Work Force analysis
based on Western Australian narrative

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Abstract
The study adopts a Focus group discussion than the more dominant quantitative data in studying Western
Australian Business landscape and it’s local and global disrupters, repellents and extractors are
exhaustively and critically analyzed. In order to ascertain needed competencies to navigate the next
industrial revolution, current practices of government and non-government initiatives can be juxtaposed
to rowing and rafting phenomena. The current global strategic HR perspective should be focused, fast
and flexible but the Australian Government and most corporate conglomerates view are it should be Safe, Slow
and Strict. People make sense of their world where human actions are based upon the person’s
interpretation of events, societal meanings, intentions and beliefs (Gill and Johnson 20101; Denzin and
Lincoln, 20052). The Australian public’s belief in navigating the next industrial revolution and the effect of
Government policy-making is analyzed critically in this paper. The following two questions being
answered with practical disparity and in the end, adjusted accordingly to make sense to the layman terms.
First “Why we need to reimagine Human Resource Management perspective?” was unveiled. Secondly,
key features of future Human Resource Management were questioned. Thirdly what should the Australian
corporates and Governments do differently to assimilate our workforce to reap benefits from the next
industrial revolution is discussed. Finally championing the change using the right blend of leadership style
and scale of change discussed in length to add clarity to the perspective.

Keywords: Next Industrial revolution 10 G’ Framework; Culture of Character; Change Management.

INTRODUCTION
Leading economist and strategist Klaus Schwab in his best selling book “The Fourth Industrial
Revolution” or the “Industry 4.0” is already happening. The Fourth Industrial Revolution can and will be
disrupting almost every economy, every industry, every sector and every country in the world and thus
will create massive change in a non-linear way at an unprecedented speed. Although some analysts and
commentators define it as an extension of computerization of the 3rd Industrial Revolution (The Digital
Revolution), it has its own distinct taste and flavor to it. As Schawb states in his book, The Fourth Industrial
Revolution will be unlike anything humankind has experienced before due to the scale, scope
complexity and the transformation it will bring to the whole world, although we do not know the global
disrupters, repellents and extractors it will bring along the world should have an integrated and
comprehensive approach involving all stakeholders of the global polity, from the public and private sectors
to academia and civil society.

Significance and Importance.
The historic perspective on Industrial revolutions liberated humankind from suffering and barrage
from the animal kingdom, It made the transient transition from physical labor to intellectual capabilities
and this is not without any vice from the transition. It created new problems and new paradigms to sort
and figure. The incoming fourth industrial revolution with bringing forth more fundamentally different
technologies fusing the physical, digital and biological worlds, it will change the status-quo impacting all disciplines, sectors, economies, and industries. New AI technologies will enhance the human interactions at the same time will hinder physical joys of it. When analyzing it through the prism of history, the following can be tabulated.

The first industrial revolutions started with Steam, water and mechanical production equipment then the knowledge revolution expedited its division of labor, electricity and mass production in the 70's Electronics, IT and automated production facilitated the smooth transition to modern-day living and other luxuries. The next is the fourth wave, the cyber-physical systems.

In this context the world will be a global village, billions of people will be connected via digital networks, the efficiency and effectiveness of the workforce will be increased in bounds and leaps. More importantly, the futuristic workforce will manage assets in ways that will help regenerate the natural environment and thus reversing and undoing previous industrial revolutions. However, Schwab also iterates the negative side very subtly. The governments may and will fail to employ and regulate new technologies and will miss reaping benefits, the power concerns due to inequalities and the divide between the rich and the poor will also grow.

In a nutshell, the fourth industrial revolution can be explained in a linear equation with a continuous, sequential and incremental approach. Where the successful advancements in technology created a specific window of opportunity for development. But some scholars argue and substantiate using serendipity and chaos theory as significant propellers but most scholars and academics determine humane interactions are pivotal to manage and harness the next industrial revolution.

In this aspect, Human intervention and interaction play a significant role in the 4th industrial revolution. The role human resources plays and the sectorial impact will be analyzed with a specific perspective to Western Australia.

Research Problem

The management problem identified is that Australian public and private sector organizations are not embracing nor anticipating the multi-faceted, radical, non-evolutionary changes that will bring with the next industrial revolution. This failure can result in many negative consequences such as catastrophic job losses, economic downturn and high welfare cost to the government and other agencies.

The research problem is How can the future Australian workforce competently navigate the next industrial revolution? - The subsidiary questions were related to reimagining the strategic human resources perspective, “Why we need to reimagine Human Resource Management perspective?” and “key features of future Human Resource Management?” Thirdly “what should the Australian corporates and Governments do differently to assimilate our workforce to reap benefits from the next industrial revolution?” is discussed.

Objectives

This research had the following objectives:

a) To identify the extent to which public and private sector organizations are successful in identifying and anticipating future opportunities and threats;

b) To gain insights into strategic HR orientation;

c) To make recommendations, based on findings in-order to navigate strategic HR incorporates and in government (both state and federal level)
Significance of the Research

The literature indicates significant insight into to futuristic workforce and the critical part the organizational culture should play to embrace and enhance it. Organizations people can be noted as the sustainable competitive advantage segment. However, the organization should have the right blend of controls to be a financially viable, sustainably ethical and principally virtuous source of service delivery. The researcher noticed although considerable attention was focused on other human resources topics, namely Retention, Performance management and training and employee motivation. Analyzing the organizational culture and synergize the competencies from multi-cultural, ethnic people from CaLD (Culturally and Linguistically Diverse) backgrounds were not substantially evaluated. Therefore it is expected that this study will fill a research gap and contribute to creating new knowledge to benefit organizations to embrace the next industrial revolution.

LITERATURE REVIEW

The 1991 book “The history of America’s future” by Strauss and Howe, describe a theorized generational cycle in which recurring patterns emerge within specific time frames. This history of the United States of America was detailed as a succession of Anglo-American generational biographies from 1584 to 2069. The working culture and the frame of reference also changed drastically, the following picture taken from the “Global Co-working Conference (2016) draws a clearer picture of today's workforce.

![Figure 1 - Work-Life Integration](image)

The traditional 9.00 a.m. to 5.00 p.m. work hours are changed to a more flexible and elastic pattern. The multi-generational, multi-skilled and multi-cultural workforce has changed the organizational culture significantly. As stated by Trevino and Nelson in (2004, pg. 225), “Culture” can be described as an organization’s internal modus operandi, that differentiate the organization from other organizations. It is “the system of shared beliefs and values that develops within an organization and guides the behavior of its members (Schermerhorn, 2005, pg. 96). According to Geert Hofstede, broader Culture is the
"Collective programming of mind which distinguishes the members of one category from another" Fons Trompenaas & Charles Hampden-Tumer stated and compared, “Culture” to an Onion, the outer layer is visible cultural differences, such as the clothes people wear, the food they eat and etc. While going deeper is the actions that individuals perform, such as greetings, bow or the handshakes. At the centre of the onion are the key beliefs and motivating factors that are not so visible, but have the effect of determining behavior on the more superficial layers of the onion. Most researchers concentrate their research on this “heart of the onion” and examine how it affects the other outer layers. In normal terms” The consequences of culture”, Organizational culture refers to “the set of important understandings such as norms, values, attitudes and beliefs shared by organizational members”. The levels of organizational culture articulately presented by Edgar Schein in the following diagram,

**Figure 2 -Schein’s Assumptions-Values-Artifacts model**

Using such an important “core aspect of culture” to espouse values, stories, symbols, rites and ethics people must influence the organizations and can be influenced as long as it exhibits desirable virtues and behaviors. According to Saucer (Saucer, 2008), organizational culture can be segmented into four groups based on their stand towards the ethical behavior of the business. This notion further strengthened by Schermerhorn (Schermerhorn, 2005, pg. 75-76), with respect to moral thought and action in business. The four basic types according to Schermerhorn were, a). Defiance, b). Compliance, c). Neglect and 4). Character.

As stated by Schermerhorn (Schermerhorn, 2005, pg. 75-76) these types can be further explained as follows

**Organizational Character.**

An organization that’s vision, mission, goals, objectives, and strategies are centered around a “protectionist/ nationalistic” ideology displays a predominant “Culture of defiance”, the expected behavior aligned with “obstructionist strategy”. This will be predominantly towards ethical standards and ecological agreements. Most high-level executives are Australia hamper on “Achieving economic success at any cost; just don’t get caught” notion and present Royal Commission into misconduct in the Banking,
Superannuation and financial services industry is an example for the culture of defiance in the corporate sector.

The organizations with a “culture of compliance” exhibit polar opposing yet diagonally synchronizing, defensive and accommodative strategies. In these corporates boards and executives do not agree on the stipulated terms and conditions by the regulators but would not take actions to deviate from the rules. These organizations will take actions to meet their minimum legal and ethical obligations. In a psychological, ethical perspective, compliance in accordance with the organizational character was clearly stated by McGuire (McGuire, 1969, pg. 190). The important distinction between compliant to the stated guidelines of the industry and industry with an honest character can be illustrated clearly when the organization internalizes (adopts the rules and incorporate with organizations broader value system) the requirements and set standards. This is the culture of compliance and the character of the company. If the company grudgingly accepts the rules and hesitantly implementing it does not portray the organizational character and hinders the true incorporation of the “spirit” of the standards.

The “Culture of neglect” is often depicted as tragic and prevalent. The board and the executives are trying to implement a culture of compliance but necessary strategies and action plans are not available during the time of execution. The failure to comprehend the law, failure to communicate between separate business units and failure to punish defective behavior are a few examples of this situation.

If neglects, mishaps, and anomalies mentioned in the “Culture of neglect” get closely monitored by the leaders then it portrays the cornerstone of “Culture of character”. The leaders are constantly vigilant to detect and correct ethical shortcomings. Due diligence and performing without negligence are visible within top-level executives and managers.

“Culture of Character” – Characterized

The positive ethical values are ingrained through the practices and processes in these organizations to such extent members strive and achieve without fail to know what’s right, value what’s right and adhere to the right actions. According to Turknett and Turknett (2002), an organization with character is similar to a person with character. This needs so explanatory remarks and Turknett defines the character of the organization, “Like people with character, they get results, but they do it with integrity and respect for people. Like people with character, companies with character are able to balance accountability and courage with humility and respect.” These organizations comply with legal and ethical standards and at the same time internalize them from top to bottom in such a way every member becomes a defender of organizational integrity. The key difference with organizations with “culture of compliance” and “culture of character”; In compliance culture organization protect the “letter of the law” but character organizations, they preserve the “spirit of the law”.

How can the leaders preserve the organizations with a character with the intention to grow and prosper in the coming Industrial revolution lies with Human resource capacity development and strategy.

As mentioned earlier the current workforce also consists of multi-faced and multidimensional personalities and harnessing the differences for effective utilization of capacity development is crucial. It ensures better utilization of resources, reduces wastage, minimizes problems like labor turnover, absenteeism and grievances and also improves cooperation and team spirit. Then the important question rises, “Why we need to reimagine the Human Resource Management perspective?”

The futuristic workforce should represent the following; It should be lean. It should be green and it should be seen (as a change agent). When we consider the different approaches by the Australian State and Federal governments, it is evident the lean perspective is not yet addressed. The amalgamation of
service delivery by the state government is commendable and should be taken forward with the amalgamation of local councils as well. Large corporates should invest in business process automation and re-engineering processes to have a lean operating structure.

“What gets measured, gets done” catchphrase should be infused with practical wisdom. In the next industrial revolution, “Not everything that can be counted counts and not everything that counts can be counted” adage will be more common but the upper management and the boards should not deviate from academic qualifications, industry-specific knowledge, work-related skills and other competencies. Today’s younger generation is more confident and elaborative in expression but doesn’t have the mentioned qualities and skills.

Futuristic strategic human resources work as an ecosystem, It should be in broader perspective cater and nourish:

a) The community,
b) Have interactions among elements.
c) Create dynamic relationships and create value.

In order to have a clear understanding of the current practices and application of HR, the following definition can be used as stepping stone from now to the future. Dharmasiri (Dharmasiri et al, 2014) succinctly explains current human resources perspective with the following definition,

“A strategic and integrated approach in acquisition, development, and engagement of talent, using relevant tools, with proper policies, practices and processes in creating a conducive climate towards achieving organizational excellence and societal well-being” (Dharmasiri et al, 2014)

This definition is self-explanatory as it intricate overall goals and specific objectives. The HR approach should be holistic and must align with the broader stakeholders.

RESEARCH METHOD

A predominantly secondary data qualitative methodology adopted with “focus group discussions” with academia, professionals, intellectuals and thought leaders. The validity and reliability of data were verified as per the Australian Bureau of Statics and Reserve Bank published reports.

RESULTS AND DISCUSSION

Consequential aspects of future human resources management, the impact can be divided into public and private sectors but the benefits are the same.

a) Retain and attract new talent to the state government & private sector.
b) Increase employee engagement and productivity.
c) Serve end-users effectively and efficiently.
d) Optimize the footprint of government.
e) Leverage and enhance technology solutions.
f) Strengthen adaptability for changing work.
g) Reduce the impact on eco-systems.
h) Support and enhance health & well-being.

The futurist aspects should be inline and supportive to the State and Federal legislation and as stipulated according to the State Government “Public Sector Commission” website and subsequently iterated by the Commissioner’s circular 2017-04. The integrated workforce and diversity plans support cross-government legislations such as,

a) Equal opportunity Act of 1984
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b) Public Sector Management Act 1994
c) SkillingWA – A Workforce Development Plan for Western Australia (2nd Ed.)
d) Disability Access and Inclusion Plans.
e) Reconciliation Action Plans.

"In February 2011, Commissioner’s Circular 2011-02 Workforce planning and Diversity in the Public Sector was released encouraging entities to develop an integrated workforce and diversity plan. Integrating the requirements of diversity and EEO into a broader workforce and diversity plan ensures public authorities manage the diverse backgrounds, skills, talents, and perspectives of their workforce in strong economic climates or periods of downturn.

In this sense what was elaborated earlier as "strategic" is working towards achieving overall goals and specific objectives of the organization. It is essentially realigning the broader organizational priorities. As expressed by Ulrich (2009), Talent acquisition plays a leading role in the future, strategic human resources.

Talent = Competence X Commitment X Contribution

The conducive HRM climate should have an ECO System according to Dharmasiri (2015).

![Figure 3 - HR Eco System through ten G's (Dharmasiri)](image)

The future Strategic Human Resource Management (SHRM) defines organizations’ goals to be achieved through people by means of HR strategies and integrated HR policies and practices.

Getting the "Right Candidate" (Bias and racial profiling)

The employee turnover in the private sector is ever increasing and the efficiency in Western Australian Public sector is decreasing. In evaluating whether “right person” has been identified and screened for the “right job”. From the vast number of perspectives and different writers opinions funnel
down to one critical word “job fit”. According to Sekiguchi (2004), discusses two types of “fit” in relation to theoretical conceptualization. Person - job fit and person - organization fit.

In regard to a person - job fit perspective, employers/ companies seek to match the jobholders' academic qualifications, skills, relevant work experiences to the requirement of the job. On the other hand person - organization fit, focus mainly on how well the individuals fit with the existing organizational culture and the individual’s ability to get along with the organization’s current employees.

Most Western Australian conglomerates and State and Federal government agencies align towards White Caucasian workers even they lack academic credentials and work experiences. When these people get on board the organizations get affected due to mental health and personal injury claims.

![Diagram of Person - Job Fit]

Source: Sekiguchi, (2004: 179)

**Figure 4 - Conceptualization of Person - Job Fit**

**Corporates and Public sector employers obligations to navigate future HR.**

Prominent Academic, Intellectual and a thought leader in Strategic HRM, Professor Ajantha Dharmasiri lays the foundations to the comprehensive and strategic scope of 10 G framework. It is a novel concept that can be used to instigate a new paradigm shift in strategic HRM thus availing new resources to maneuver the next industrial revolution.

Professor Dharmasiri’s “Ten G (10 G) framework” elaborated and applied in the context. “All experience is an arch to build upon” – Henry Brooks Adams (Knowles, 2004, pg.2) The first determinant of the grounded framework is to dictate institutional or organizational context. This could be private, public, semi-government or not-for-profit sector. Next, the “Ten G” framework is to be applied accordingly.

**Goal**

Setting goals is the most important element. Goals should be in line with the organization’s vision and mission. It revolves around strategic intent and customer segmentation. The next step is to align people with goals of the organization (Thomson et al, 2014)

**Get**

In the Australian context getting the right employees for the organization was hindered by racial biases. The hiring challenge looms in large organizations in diverse environments. This is due to the talent gap.
According to Dharmasiri the R-R gap, which is the gap between “required talent” and “raw talent” is to be identified in today’s target-driven environment.

As explained in Baur (Baur et al, 2014) states updated job descriptions and job specifications should be available for each position advertised and should be used in the selection process.

**Grow**

Training and development are critical to the success of an organization. The difference is between training and development is, training is current and development is for the future. Further identification of training and development needs is critical to success. The training programs should have clarity on design, coverage, delivery methods and presenters as well as the behavioral changes expected after the training (Dharmasiri, 2015).

The effectiveness of training is measured by (ROTI) Return On Training Investment and becoming a critical factor in other countries but in Australia, it is conveniently neglected.

**Give**

Remuneration / Just compensation for the work is a critical factor for success in business and it’s an ethical consideration too. As the old saying goes “If you give peanuts, you will get monkeys”. Australian context “Internships” and “unpaid work experiences” hinders attracting right-fit employees to the Australian conglomerates.

In futuristic orientation, organizations should have well-structured reward and recognition schemes in place. This area is determined by short-sighted senior managers and a complete overhaul of rewarding employees in a haphazard manner.

**Glue**

Employee retention in Australia has been a major problem for the past few years. According to the “Turnover and Retention Research Report” by the Australian HR Institute, 2008 average turnover was 18.5%, followed by a 2015 average turnover of 16% to a 2% increase in 2018 by 18%. The choices of retaining employees should be in place within the organization. Rewarding high performers and setting benchmarks should be inline with organizations’ values. The multi-faceted, multi-layered phenomena of employee engagement need to be dealt with appropriate and timely strategies (Shuck & Wollard, 2011).

Australian organizations should have exit interviews to tabulate reasons for leaving and take appropriate actions to mitigate the outflow if it is high on the HR agenda. Recruitment is always a costly affair and retention is always affordable to the organization.

**Glow**

Creating a mutually rewarding and supporting environment where employees can unleash their potential is another way of allowing them to “glow”. This approach will allow employees to participate with new ideas and to provide a new perspective to the organization.

**Guard**

When new policies and procedures are implemented it should be insulated with a new framework. A sudden change in shared and willingly practiced set of corporate values should be guarded with military precision and scrutiny. Otherwise employees having uncertainty and ambiguity will deter the
organizational direction. Just like when we take ice cubes from the fridge to the outside it gets melted, if we want to keep it as ice we have to insulate it. The same principle applies to new policies.

As stated by professor Dharmasiri (Dharmasiri, 2015) in the diagram, 8th G refers to the competition amongst other various institutions. The differentiation factor is the next few elements of the 10 G, is it concerns with other institutions in the industry. At the contextual level, the “Group” organization exchange goods and services can be pointed out.

**Grapple**

The possible conflicting situations and probable collaborations with Industry rivalries in regards to strategic HR discussed under this heading. In Australia and in the Western World, headhunting is done with aggressive passion. Employee loyalty is also less strong than the eastern cultures.

In this context, grapple refers to the challenges anticipated by the organization whilst competing for talent acquisition with others in the business sector.

**Grip**

Dharmasiri eloquently and explicitly expounds the importance of this concept. The organization should be able to identify the issues that will impact the organization in the short term and the long-term time horizons. The need for HR professionals to discuss and grip the issues is of paramount importance to the organization.

**Gratify**

The final concept of 10 G’s is the “Gratification”, the strategic HRM with a futuristic perspective should have strategies to connect, cooperate and collaborate with multiple stakeholders (Institutions, communities and organizations at different levels). This concept should cover general and global levels (Dharmasiri, 2015).

**Championing the change (Australian perspective)**

English writer and poet D.H Lawrence explained this idea boldly: “No one fears a new idea, what they fear is a new experience”

Whether the corporates and the existing party in power like it or not, change has become a competitive necessity to steer towards the next industrial revolution. To become pioneers, trendsetters and trailblazers we all should change for the betterment of the society.

English naturalist Charles Darwin emphasized this critical factor; “It is not the strongest species that survive, nor the most intelligent, but the ones who are most responsive to change”

Therefore to navigate the next industrial revolution Australians irrespective of the business sector and the industry should change their practices with a holistic approach in mind.

**Types of change**

As mentioned at the very beginning, to reap the maximum benefits of the next industrial revolution global business outlook should be focused, fast and flexible but the Australian Government and most corporate conglomerates view are it should be Safe, Slow and Strict.

In the current fast-moving world we cannot have a “slow and steady evolutionary transition” but should focus on an “evolutionary” or in a more adept “revolutionary” transition.
In 1951, German-American psychologist Kurt Lewin (Lewin, 1947) discussed the change management in detail and put forward the following three-step concept.

a) Unfreeze the existing organizational structure.

b) Change the desired systems and procedures.

c) Refreeze the organization.

In theory, this makes sense and change management gurus and experts quote it very liberally but when applied to practical scenarios it makes a complete disorder. The reason is it should be managed and guided by competent professionals and leaders of the organization.

Leadership styles and scale of change.

Two leadership researchers, Dexter Dunphy and Doug Stace in 1993 came up with a model and we used it to clarify the points mentioned above.

The core concept is Leadership plays a vital role in navigating the next industrial revolution and the organizations should have top-notch workforce to deliver and support change.

![Strategies for Change](image)

Figure 5 - Strategies for Change (Dunphy & Stace, 1990)

Championing change is a crucial and important challenge for corporations. This should be managed with the right blend of leadership style and the scale of change.

Identified strategy for the Australian public and private sector

From the diagrams 4 scenarios, we adopted “Forced evolution”. This is mainly due to the fact that Australian nature is such there is strong resistance to move beyond comfort zones. The racial vilifications and constant fabrication of facts by the media make it very difficult to implement new ideas and strategies in the workplace. Many state and federal level initiatives failed due to a lack of leadership to instigate change in organizations.
Therefore unless forced to comply Australian’s will never deviate from established practices. In “forced Evolution” we take small steps with out upsetting the established practices much but the change is constant and sequential.

**Identified requirements for successful change management.**

The following three areas are crucial for the successful implementation and ongoing progress of the organization. The identified requirements are as follows,

a) Relationship
b) Reciprocity
c) Reinforcement

The first two are mission-critical for successful integration and the last will ensure going concern for the implemented strategies.

**CONCLUSION**

Australia and the rest of the world have entered an era of opportunities, leaving behind the bitter times of the global financial crisis (GFC) that happened in 2007-08. The next industrial revolution is looming and the countries are embracing it with renewed aspirations. When analyzing the Australian corporate workforce and the Public sector, the Researcher has seen and identified lagging indicators pertinent to strategic human resource orientation. The paper discussed “Why we need to reimagine Human Resource Management perspective?” and the “key features of future strategic Human Resource Management strategies” then analyzed “what factors should the Australian corporates and Governments do differently to assimilate our workforce to reap benefits” and finally “championing the change using right blend of leadership style and scale of change” discussed in length to add clarity to the perspective.

The findings are in line with Professor Ajantha Dharmasiri’s (2015) conceptual framework. The 10 G’ perspective was analyzed to add a frame of reference and a coherent approach to the Western Australian public and corporate sectors. For further study identified the following recruitment strategies to include multi-cultural and multi-ethnic communities from CALD (Culturally and Linguistically Diverse) backgrounds and increasing other ethnicities in public sector executive roles.

**REFERENCES**


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