

**Potential Gender and Social Inclusion Research Issues related to Actuarial Science
and Risk Management**

for:

**Risk Management, Economic Sustainability and Actuarial Science Development
Project in Indonesia**

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List of Acronyms

EU	European Union
IFoA	Institute and Faculty of Actuaries
MFI	Microfinance Institution
READI	Risk Management, Economic Sustainability and Actuarial Science Development Project in Indonesia
ROE	Return on equity
TB	Tuberculosis
uWaterloo	University of Waterloo
UNDP	United Nations Development Program
WHO	World Health Organization

Potential Gender and Social Inclusion Research Issues related to Actuarial Science and Risk Management

The University of Waterloo is serving as the Canadian Executing Agency for the Risk Management, Economic Sustainability and Actuarial Science Development Project in Indonesia. The project's objective is to establish Indonesia as a regional centre of actuarial excellence. The project is working with a range of key stakeholders – including high schools and universities, the insurance and pensions industry, Indonesia's professional actuarial association, and government agencies to:

1. Increase the number and quality of Indonesian actuarial science graduates available to Indonesian businesses, universities and government agencies.
2. Strengthen the linkages between industry, government and educational institutions in support of actuarial science and risk management.
3. Deepen understanding of actuarial science and risk management as a profession.

To help establish Indonesia as a regional Centre of Excellence those who work in Actuarial Science and Risk Management in Indonesia will need to systematically consider diverse gender issues in their work as a routine technical standard. These areas include:

1. **Risk Management** – What gender-related factors constitute a risk that need to be taken into account in risk assessments related to insurance and social protection? It also includes a case study on different factors affecting risk assessments related to health insurance.
2. **Micro Insurance** – What are the key gender variables and factors that need to be taken into account in the development of micro insurance products designed to address risk for the poor in Indonesia?
3. **Gender Balance in the Actuarial and Risk Management Profession** – What are the main gender-related factors affecting women and men's employment in the sector and contributing to gender imbalances in this profession in Indonesia?

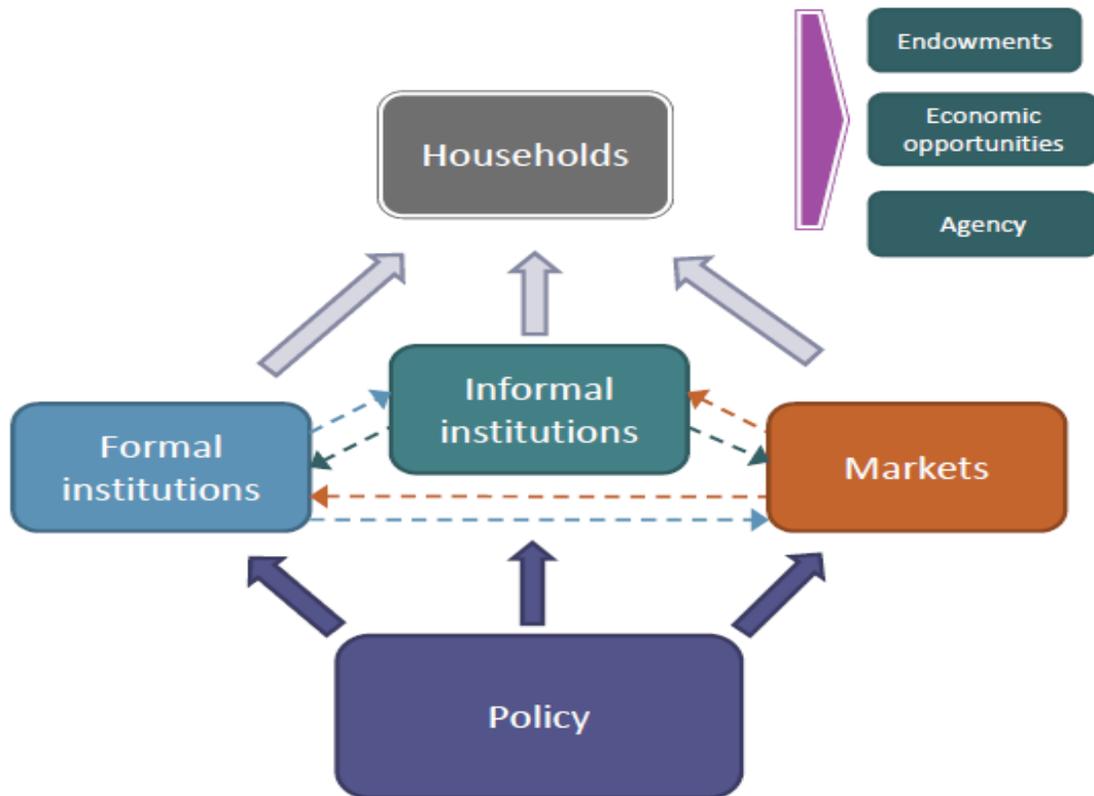
This summary reviews key gender issues for all three areas, suggests a possible gender analysis model to follow and identifies potential research questions for further exploration, possibly through the READI project's research fund. This summary reflection paper identifies general gender issues associated with actuarial science and risk management. The idea is that Indonesian researchers could use this background reflection paper to help select related themes on which they can then explore diverse themes related to gender and actuarial science and risk management in Indonesia and to fill in related gaps in knowledge and sex-disaggregated data and analysis within the Indonesian context.

Research Area One: Gender Analysis of Social Protection Policies and Practices

Economic Systems Framework

One possible gender analysis framework that could be used to underpin gender and social inclusion research in the actuarial science and risk management sector was developed by the World Bank in 2012 (see Diagram 1 below).¹

Diagram 1: Economic Systems Framework



The World Bank’s Economic Systems Framework examines the dynamic relationship between economic development and gender equality juxtaposed against their interactions between several other levels and factors. These include interactions between the following:

- **Households** - including intra-household decision-making related to purchasing insurance, and access to resources such as diverse insurance or social protection products

¹ World Bank. 2012. World Development Report 2012:Overview. Washington D. C.: World Bank Group.

- **Formal institutions** – in this case, the legal system and laws and policies related to insurance regulation and labour laws; the education system with regard to opportunities for women and men to study actuarial science and risk management and the banking/credit system, particularly with regard to making microinsurance products available and accessible
- **Informal institutions** - these include gender values and attitudes and markets such as views of what work is appropriate for women and men, male/female levels of risk taking, and the male/female ratio of poor households needing microinsurance.

By examining these dynamic relationships it is possible to identify key entry points for different policies and actions that will contribute to increased gender equality and in diverse areas of actuarial science, risk management and insurance. (e.g., in markets, laws, service delivery and insurance products available).

The Economic System framework also allows analysts and policy makers to take both “productive” or remunerated work and unpaid “care” work into account in policy and program development, as well as the impact of culturally based gender values on market development and access. It is critical to include unpaid work in actuarial and risk management analysis as the ILO estimates that the value of unpaid care work can be equivalent to at least half of a country’s GDP.² Many governments also depend on unpaid care work to reduce the financial burden on the State and as a critical complement to social protection funding and support.

Currently, women and girls perform most of the unpaid work in all countries. The time required to perform this work can limit women’s economic opportunities in some cases. This may mean that many women are able to spend less time in the workforce compared to men, particularly if they take a career break to have children. This has serious implications for women’s future social security and protection under national insurance schemes and pensions plans.

Research Implications related to Economic System Framework

1. Conduct a gender analysis of Indonesia’s social protection policies and practices using the Economic Systems Framework to determine what are the key gender issues within these policies and practices and what may be recommended changes to make the social protection system more equitable.

² ILO. March 2010. Women in Labour Markets: Measuring Progress and Identifying Challenges. Geneva: ILO.

Research Area Two: Gender and Risk Management

Issue: General Gender and Risk Assessment Categories of Analysis

Risk is an essential factor any business or institution needs to take into account in its planning and decision-making.³ Looking at risk from an insurance or social protection perspective, risk management helps protect individuals, families and businesses from some of the uncertainty that can arise from risks such as accidents, illness or death as well as from exceptional circumstances such as natural disasters.

Some standard risk categories include: Financial; Operational; Governance; Information / Technology; Human Resources; Environmental; Unethical Behaviour and Access and use of services limited by cultural practices and beliefs.⁴ Gender also needs to be added to this list as both a standard stand alone risk category as well as a factor each risk category needs to take into account as a standard practice. For example, if we look at the risk category list above from a gender lens a small sample of some potential factors to consider with regard to risk assessment for these categories include:

1. Financial Risks

- Are there any significant differences in loan repayment patterns of men and women?⁵

2. Operational Risks

- Is there a risk that if your institution's or business' policies or programs are not considering the different priority needs of both women and men could this oversight contribute to your institution/business not meeting its objectives effectively? There are multiple studies which have found that businesses and institutions which systematically apply a gender lens and analysis to their work have been able to effect greater efficiencies, growth and profits.⁶ Conversely, those that do not face greater risks of

³ Alberta-Ghana Partnership. June 2013. Leadership Orientation in Risk Management. Institute of Public Administration of Canada/CIDA Democratic Governance Program. PPT presentation.

⁴ Some others include: Unreliable budgets; Compliance/Legal; Reputation; Political, Insufficient cash flow; New competitors; Strategy and operational process unaligned; Increased client / customer demands; Fraud; New technological advances, etc.

⁵ Both microfinance institutions (MFIs) and banks have reported that women-owned businesses default on loan payments significantly less than men D'Espalier, Bert, Isabelle Guérin, and Roy. Merland, 2009. Women and Repayment in Finance. https://www.microfinancegateway.org/sites/default/files/mfg-en-paper-women-and-repayment-in-microfinance-mar-2009_0.pdf

⁶ Peebles, Dana, Nada Darwazeh, Hala Ghosheh, and Amal Sabbagh, 2006. Factors Affecting Women's Participation in the Private Sector in Jordan. Centre for Human Resource Development: Amman

failure or inefficient use of financial and human resources.

3. Governance:

- If women and men are not represented equitably in decision-making, do you risk missing important perspectives from either group that could have a negative impact on the achievement of your objectives?

4. Information / Technology:

- What risks are associated with women and men's differential access to information and technology and their communication preferences?

5. Human Resources:

- What risks does your organization face if it is perceived to be an inequitable employer (e.g., poor staff retention, low morale, limited ability to attract male/female talent, etc.)?

6. Environmental:

- Women and men interact with and are affected by the environment in different ways How might this affect achievement of program/policy objectives or the need for diverse microinsurance products?

7. Unethical Behaviour

- Are there cultural patterns of what is considered unethical behaviour that could effect how effective a social protection or insurance program might be?

8. Access and Use of Services Limited by Cultural Practices and Beliefs

- Are there any cultural practices or beliefs that would limit women's access to insurance/social protection products?

Inclusion of gender as a stand alone category would involve including questions in risk assessments to determine if there are any specific gender issues that will have an effect on the outcome of a particular project, program or policy, if these pose a risk to their successful implementation and if by not taking these gender factors into account, there is a risk of incurring increased costs or excluding specific groups of women or men from insurance or social protection coverage to which they should be entitled.

Potential Research Questions related to Gender-Sensitive Risk Assessments

Key questions to ask regarding gender that need to be considered in standard risk assessments related to social protection or insurance products include:

1. What categories of analysis would standard risk assessments for social protection and different types of insurance that take gender into account from both a biological and socio-economic and cultural perspective include? How does this differ from current practice? What types of data are not being collected and analyzed? How does this currently affect social protection policies and insurance product coverage and risk assessments?
2. Are there any specific groups of women or men (e.g., by income, age, rural/urban location, etc.) who face increased risk or vulnerability related to accidents, life expectancy, disability, or loss of income or property due to their being male or female? If so, how does this affect their access and cost of insurance and social protection support?

(If you would like more background any of the potential research categories outlined in this paper, please refer to READI's Reflection Paper on Gender Analysis Issues related to Actuarial Science and Risk Management – add link)

Research Area Three: Gender and Health Insurance

Health insurance risk assessments are based on diverse sources of medical research that examine demographic patterns. There are two key challenges with this research. The **first** is that many health studies are conducted solely on male subjects, often primarily those of Caucasian origin. Two reasons for this research bias are that it is assumed that women of child-bearing age could potentially be adversely affected by the testing of any medications for specific conditions on them and that the hormonal differences between women and men could “skew” the research results. However, health research also shows that women and men may react differently to treatment regimes precisely because of these hormonal and other physiological differences.⁷ Therefore health research studies generally need to be conducted on both sexes and the data analyzed to determine if there are any significant gender differences. This gender bias in some health research could potentially lead to inaccurate projections of what health insurance should cover and how much it will cost to provide coverage for women and men for specific types of illnesses or conditions.

The **second issue** is that some diseases present differently in women and men. Testing and symptoms, however, again tend to be focused on the symptoms experienced by men. These gender differences can also affect the accuracy of the associated risk assessments.

There are also diseases or conditions that affect one sex more than the other. For example, in the United States men develop diabetes slightly more often than women do with 13.6% of adult men have been diagnosed with diabetes, compared with 11.2% of women.⁸ Worldwide the reported TB infection rates are higher for men than for women and historically these rates are twice as high for men.⁹ Tuberculosis is, however, still the single greatest infectious cause of death in women worldwide.¹⁰ A World Health Organization (WHO) study indicates it is not yet clear to what extent these differences result from biological factors, and how much to the under-recognition of TB among women due to poor access to care and other socio-economic factors.¹¹ There remains considerable debate as to whether men have a greater biological vulnerability to tuberculosis than women.¹²

⁷ Kartini International. 2003. Gender Equality Strategy for the Prevention and Control of Priority Communicable Diseases in South America Project. Washington D.C.: PAHO.

⁸ Everyday Health. March 1, 2017. What Men Need to Know about Type II Diabetes. Everyday Health Spotlight.

⁹ WHO. 1998. “Gender and Health: Technical Paper.” WHO/FRH/WHD/98.16. Geneva: WHO.

¹⁰ Uplekar, Mukund, Sheela Rangan, and Jessica Ogde,. 1999. Gender and Tuberculosis Control: Towards a Strategy for Research and Action. WHO. Geneva.

¹¹ Uplekar et al. op. cit.

¹² Neyrolles, Olivier, Luis Quintana-Murci, 2009. Sexual Inequality in Tuberculosis. PLOS Medicine. <http://dx.doi.org/10.1371/journal.pmed.1000199>

Another example is that both heart disease/heart attack and HIV/AIDs symptoms often present differently for women than for men. Women's risk factors for contracting HIV/AIDs also are often strongly affected by their economic and social status, with many women in some countries not being in a strong position to negotiate safe sex. While these gender differentials do not exist for all diseases and conditions, there is a growing body of evidence that this type of gender factor is commonly overlooked in risk assessments. In general, one should not be assuming that risk assessment related to health are gender neutral and that all other factors being equal women and men face the same degree of risk.

Risk assessments need to take these gender-based patterns into account but also to analyze whether the underlying causes for these differences arise from biological or socio-economic factors or a combination of both.

Potential Research Questions

While there is not a lot of definitive data on gender and tuberculosis, the data that exists suggests there are both biological and socio-economic gender differences that have a significant impact on the reporting, detection, treatment and prevention of tuberculosis. Gender analysis therefore could be a highly effective tool to assist health practitioners and planners devise more effective strategies to reduce TB disease incidence, improve diagnosis, and treatment for both sexes. This analysis is also needed to help develop risk assessments and cost projections related to health, life and disability insurance.

Potential themes for related research include:

1. What statistical tools and approaches are needed to ensure that health related insurance and social protection products take both biological and socio-economic factors into account?
2. Conduct a gender analysis of the different gender-based risk factors associated with infection rates and treatment compliance for specific diseases.

Research Area Four: Gender-based Discrimination in Insurance?

Issue: To Discriminate on the Basis of Gender or Not?

Depending upon the legislation in each country, differential risk rates based on gender are commonly used to determine insurance rates. For example, it is sometimes the practice for insurance rates charged to young male drivers to be much higher than for young women of the same age since the historical statistical evidence is that young men experience significantly higher rates of car or motorcycle accidents than young women in the same age group. Globally, women have life expectancies that are longer than men's by two to five years, depending upon the country. This globally known phenomenon is used in some countries as a rationale for establishing differential life insurance rates for men and women, particularly annuities.

The argument used is that this gender discrimination can be justified as it is based on statistical evidence borne out by analysis of demographic patterns in diverse risk categories. This gender discrimination can benefit women with regard to being charged lower insurance premiums for accident insurance, but also means that some insurers charge women more for annuities. It also means that men pay more for some types of insurance and less for annuities in some countries.

Evidence-based gender discrimination is not permitted in some countries; in others it is considered a fair commercial practice. In the European Union (EU) countries since December 2012, insurance companies now have to charge the same price to men and women for the same insurance products, without any distinctions on the grounds of sex.¹³ Pricing in EU countries now has to be based on risk factors other than sex. This ruling means people will no longer have to pay more or less, simply because of being male or female.¹⁴ It is thought that this will be a fairer practice as people will be charged insurance premiums based on their actual history as opposed to gender-based behaviour patterns.¹⁵

The EU noted the actual impact of this change for insurers and insurance customers would be hard to predict since insurers have to calculate their prices based on multiple factors, including the percentage of men and women in their portfolio, the transition cost, risk margins to adapt to a new system and the level of competition in a specific market.¹⁶ However, overall, it is likely that women's premiums will go up in multiple insurance categories (with the possible exception of annuities), thus meaning that women in EU countries may now be subsidizing men's claims in several risk categories.

Potential research question:

1. How does the existing system of and legislation related insurance pricing policies in Indonesia specifically affect women and men for different types of social protection and insurance products?

¹³ EU. 2013. Fact Sheet: EU Rules on Gender Neutral Pricing in Insurance. http://ec.europa.eu/justice/gender-equality/files/unisex_insurance_en.pdf

¹⁴ EU. Op. cit.

¹⁵ Collinson, Patrick. 14 January 2016. "How an EU Gender Equality Ruling Widened Inequality", The Guardian.

¹⁶ Ibid.

Research Area Five: Gender and Microinsurance

What is Microinsurance?

Microinsurance refers to insurance services primarily offered to clients with low income and limited access to mainstream insurance services and other means of coping effectively with risk.¹⁷ It is not a specific product or product line nor is it limited to a specific provider type.¹⁸ Rather microinsurance is the provision of cover to a specific market segment – in this case the poor. It is often offered by a combination of governments, donors and microfinance institutions.

Currently, only 3% of the poor in the world's 100 poorest countries have microinsurance, leaving approximately two billion people uninsured.¹⁹ This market segment represents both a huge potential market and opportunity to use microinsurance products to help reduce poverty for a large part of the world's population. Garand and Swederick observe that low-income households are both exposed to more risk are more vulnerable since the coping strategies the poor have available to them often contribute to continuing or reinforcing the poverty cycle.²⁰

Issue: Gender and Microinsurance

There are multiple gender issues that need to be taken into account when developing micro-insurance products. These include developing an understanding of both the specific vulnerabilities and risks poor women face and their specific insurance needs. Banthia et al have identified these gender-specific risks as including the fact that:

1. Women are over-represented among the world's poor, comprising 70% of the poor.
2. Poor women tend to use coping strategies that may be effective in the short term but can reinforce longer-term poverty. These include selling assets, pulling their children out of school and using business profits to cover short-term emergencies instead of making longer-term investments.
3. Due to pregnancy and childbirth women face highly specific health risks. They are also more vulnerable to some types of disease, most notably HIV/AIDS.
4. Women are likely to live longer than men. For poor women this can lead to long years of

¹⁷ Mico Insurance Network. n.d. Microinsurance. <http://www.microinsurancenetowork.org/working-groups>

¹⁸ Garand, Denis with Donna Swederick, n.d. Introduction to Microinsurance and Pricing. PPT presentation.

¹⁹ Banthia, Anjali; Susan Johnson, Michael McCord, and Brandon Mathews. 2009. Briefing Note - Microinsurance that Works for Women: Making Microinsurance Programs Gender-Sensitive. Geneva: ILO.

²⁰ Garand and Swederick. Op. cit.

increased poverty due to the loss of spousal income or relatives appropriating their property once they become widows.

5. Women are more likely to work in the informal sector, an area of work that is far more susceptible to risks than formal sector work where men predominate and where earnings tend to be lower.²¹
6. Women are also more vulnerable to gender-based violence. This generates a loss of both short and long term productivity and income, with women losing work time due to both physical and psychological injuries.
7. Exacerbation of natural disasters due to climate change is also increasing women's risk of injury or death. Multiple studies show that in many cases, women and children are more vulnerable to the resulting injury or death, with women, boys and girls being 14 times more likely than men to die during a disaster.²²

Key Microinsurance Challenges Women Face

Poor women have expressed various concerns about existing microinsurance products. These include that:

1. Some micro-insurers do not provide coverage for pregnancy-related costs.
2. Currently many microinsurance products are available mainly through microfinance institutions. These consist primarily of life and health insurance policies and are often tied to micro-loans the women have taken. Microloan borrowers have indicated they would like to have access to insurance policies even after their loans are paid and to be able to pay a higher premium which would cover all their family members.
3. Some poor women would prefer for insurance payouts designed to benefit their children be set up to have either staggered payouts over several years or direct payments going to cover school fees or other core expenses for their children or to a nominated beneficiary of their choice as opposed to automatically going to their spouses.
4. Women have also indicated that they would prefer that life and health insurance tied to loans be voluntary as opposed to mandatory as is often currently the case.²³

²¹ Banthia et al. 2009a. Op. cit.; Banthia Anjali; Johnson, Susan; McCord, Michael; Mathews, Brandon. 2009a. Microinsurance Paper No. 3 - Microinsurance that Works for Women: Making Gender-Sensitive Microinsurance Programs. Microinsurance Innovation Facility. Geneva: ILO.

²² Peterson. 2007. Cited in: Cited in: Disaster and Gender Statistics – Fact Sheet. IUCN. http://www.unisdr.org/files/48152_disasterandgenderstatistics.pdf

²³ Banthia et al. 2009a. op. cit.

The ILO notes that women have characteristics that may make them more attractive to formal insurers, including the fact that they are less mobile than men and thus a more stable client and that they are more likely to be more reliable in making regular payments.²⁴ A 2009 World Bank Group study that reviewed the experience of 350 Microfinance Institutions in 70 countries found that having “*more women clients is associated with lower portfolio-at-risk, lower write-offs, and lower credit-loss provisions (other things being equal)*”. These findings confirm the common perception that women, in general, are a better credit-risk for MFIs.²⁵

Women generally play key roles in managing risk and resources for their families and their role as primary family caregivers makes them a “natural target segment” for insurance companies.²⁶ The case for developing microinsurance products that cater to poor women’s specific needs therefore is a powerful one. There is a large potential market; there are existing product and delivery models that have proven to be both cost effective and profitable; and the product itself can contribute significantly to reducing risk and poverty for a large segment of the world’s female population not yet covered by insurance. In turn, this has a much wider spin-off effect as when poor women’s risks and poverty are reduced, they generally share these benefits with their children – contributing to both the overall health and welfare of the entire family.

Potential Research Questions related to Gender and Microinsurance

There are multiple themes related to gender and microinsurance that merit further research and analysis. A small sample includes the following:

1. What are the existing microinsurance programs in Indonesia, what types of insurance products do they cover and do the microinsurance options offered address poor women’s priority needs for coverage and flexibility. What changes are needed to address any gaps?
2. Which economic models provide the best combination of expanding risk coverage to poor women and men with profitability for the insurer?
3. Which specific groups of poor women in Indonesia are most vulnerable to risks that could be mitigated by having access to microinsurance and how do underlying gender equality issues and values contribute to these risks?
4. What is the intersection between microinsurance needed to address the negative impacts of climate change in Indonesia and microinsurance needed to address poor women’s priority microinsurance needs?

²⁴ Banthia et al. 2009a. op. cit.

²⁵ D’Espalier et al. Op. cit.

²⁶ Banthia et al. 2009a. op. cit.

Research Area Six: Achieving Gender Balance in the Actuarial and Risk Management Professions

Issue: The Benefits of Diversity

Apart from issues of fairness, there is also a strong economic argument for ensuring diversity in the actuarial science and risk management profession. A Credit Suisse study found that there is a significant higher level of growth and book value in companies that include women on their boards of directors. A University of Calgary Business School study also found that businesses that had at least 30% women on their boards of directors were 35% more profitable than those that did not.²⁷

A similar principle applies to hiring and promotion – i.e., those organizations/businesses that ensure their workforces reflect both a more equitable gender balance and ethnic diversity are more productive and innovative. Since the 1990s, numerous studies have also found that organizations which apply diversity and gender equality management programs have experienced the following benefits:

- Higher quality of service delivery
- Increased creativity/flexibility²⁸
- Higher quality problem solving
- A broader range of skills utilized
- Improved understanding/penetration of diverse base markets²⁹
- Increased staff morale and job satisfaction
- Less absenteeism
- Improvements in trained staff retention
- Less turnover resulting in increased savings for the organization³⁰

In the private sector, increased participation of women can have a positive impact on its ability to market its services or products. One reason for this is that women either make or strongly influence many major family consumer decisions³¹. They also often have quite different tastes, needs and priorities and management styles than men. A lack of understanding of these differences can lead to lost market opportunities. Companies with a predominantly male work force are thus generally not as well placed to capitalize on this knowledge. In 2015, the Society of Actuaries President also noted that *“a workforce that excludes underrepresented groups, even*

²⁷ Canadian Broadcasting Corporation, Radio Interview. The Business Report. October 2006.

²⁸ Cox T. and S. Blake. 1991. “Managing Cultural Diversity: implications for organizational competitiveness”. Academy of Management Executive, Vol. 5, No.3, pp45-56.

²⁹ Robinson G. and K. Dechant. , 1997. “Building a Business Case for Diversity” Academy of management Executive, Vol. 11, No. 3, pp21-31

³⁰ Devlin and Associates Canada, “Workforce Diversity: A Royal LePage Relocation Services Training Seminar”, 2001.

³¹ Chrysler Daimler’s market research indicated that women either strongly influence or make up to 70% of consumer decisions regarding car purchases. PPT presentation by Chrysler Daimler, Businesswomen’s Trade Mission to Washington, 1997.

inadvertently, would leave behind some the best candidates – candidates with skills, interests and talents that might otherwise be missed.”³²

Challenges of Achieving Diversity in the Workplace

There are, however, multiple challenges the insurance industry has to overcome to achieve a more diverse workforce. For this reason, it is critical to both identify and gain a good understanding of the key barriers and challenges women and ethnic minorities encounter in this profession. This is a relatively new area of research for the industry, but the Institute and Faculty of Actuaries (IFoA) in the USA conducted a diversity survey in 2015 that provides some interesting results that could be used as the basis for a similar study in Indonesia. Of particular interest is that the survey results highlighted the fact that women and men’s perceptions of the degree to which the challenges facing women and minority groups are quite different.

The IFoA survey results were based on 2,358 responses from roughly equal numbers of women and men who are members of the IFoA, representing approximately 9% of the Institute’s membership. The survey’s key findings were that:

1. Male survey respondents did not perceive restrictions or obstacles facing women in the workplace as acutely as female respondents³³. In addition, over a third of men thought that it is easy for women to rise up the ranks as actuaries, compared to fewer than 10% of women who felt this way.
2. There was a broad consensus of agreement that working as an actuary is equally accessible to everyone in terms of gender. Over 90% of men and over 80% of women agreed that job opportunities are equally available to men and women.
3. A greater proportion of female respondents compared to male respondents felt that domestic responsibilities were a restriction to career progress³⁴. Over a third of women felt that spending time supporting a spouse, partner or family is very restrictive to career progress, compared to fewer than 10% of men.
4. A greater proportion of female respondents compared to male respondents felt that not getting promoted as often as men was restrictive to women’s career progress. Almost half of men thought that this is not restrictive at all; fewer than 3% of men thought that it is restrictive, compared to almost 15% of women.
5. A significantly greater proportion of male respondents had never observed sexist behaviour in the office. Over 60% of men had never observed women being overlooked when making serious comments in the workplace, compared to less than a third of women who indicated that this was the case. This difference in perception is in line with studies on sexual harassment that have shown that what men and women perceive to be negative behaviour

³² Reynolds, Craig W. Nov. 2015. “*Embracing Diversity and Inclusion*”. The Actuary: Volume 13, Issue 1.

³³ This is in regard to women’s job opportunities, promotion opportunities, salaries, and the wider profession’s perception of women’s capability as actuaries.

³⁴ This was taking into account differences between part-time and full-time, age, and being a working parent.

in this regard are often quite different, with men finding some related behaviours far more acceptable than women do.³⁵

6. Female survey respondents felt that they receive less career break support than men.³⁶ Over 40% of women who took career breaks thought the Continuing Professional Development Scheme is unsupportive of career breaks, compared to under a quarter of men who took career breaks.
7. A greater proportion of men thought that their employer is supportive of working mothers, compared to women. Over 40% of men strongly agreed, compared to under a fifth of women.
8. Over three quarters of respondents said “no” or “not aware” when asked about salary differences between men and women. However, some female respondents did report they were aware of unequal pay. The survey was not able to provide any evidence as to whether this is representative of a wider problem.

This latter point bears more investigation since it is not uncommon for women to start at lower salary rates in some industries and to be paid less for doing the same work as a man working in the same type of job. It is not known if this is the case in either the USA or Indonesia in the insurance industry.

To address these issues some countries have been taking steps to increase wage transparency. As of April 2017, for example, the UK will require large employers to publish annual calculations showing how large the pay and bonus gap is between their female and male workers. Australia has also established a Workplace Gender Equality Agency, which publishes detailed regular statistics on pay gaps, with large firms being required to report on these gaps.³⁷

There are also different factors that may affect both the number of women being hired, in what capacities and how quickly (or not) they are promoted. These include (but are not limited to):

1. A perception that hiring women of productive age still constitutes a greater risk than hiring men since they are more likely to take time off for maternity leave.
2. That women with children are less likely to be committed to their jobs and to be willing or able to do overtime as needed.
3. Time spent on career breaks to have children means working mothers have less time in the workforce which can limit their access to promotions as they may lose valuable experience and contacts while on maternity leave.

³⁵ Action Aid Bangladesh. 2016. Baseline Study for She Can Project – Bangladesh. Dhaka: Action Aid Bangladesh.

³⁶ This figures the proportional differences between men and women taking career breaks for personal development and family reasons respectively took into account.

³⁷ Globe and Mail. March 6, 2017. “*Who Is Minding the Gap*”. Toronto: Globe and Mail.

4. There is still a general perception in most countries that the primary responsibility for family care is women's. Even in the Scandinavian countries time studies show that women still spend more time on family care and housework than men, e.g., women in Finland spend an average of 2.8 hours a day on these activities compared to men who spend only 1.7 hours.³⁸ These time expenditures for unpaid housework and childcare are much greater in most other countries.

Potential Research Questions

This area of research remains fairly wide open with there being multiple possibilities to address gaps in data and knowledge. Key potential research issues related to gender and human resource policies and practices in Indonesia related to the actuarial science and risk management professions include:

1. Conduct an analysis of the key factors affecting the entry of women into the field of actuarial science and risk management, including (but not limited to) cultural and family attitudes, industry Human Resource practices and policies, other gender issues and factors identified, etc. This study would also need to include recommendations for how insurance companies could address any biases or barriers identified.
2. Analyze which gender-based factors lead to fewer women than men electing to study actuarial science even when there are fairly equal numbers of women and men studying math at the undergraduate level.
3. Review and assess the numbers of women and men who work in the industry, years of experience, pay levels commensurate with age, years of experience, education and qualifications and promotion rates and a gender analysis of any significant gender differences found.

³⁸ OECD. 2014. Balancing Paid Work, Unpaid Work and Leisure.
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