Building Blocks of a New Economy: Emerging Roles for Female Entrepreneurs in Malaysia

By

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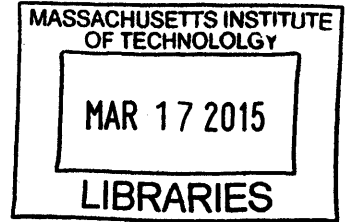Dennis Frenchman
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ABSTRACT

This field-based study highlights the role of women as entrepreneurs who spur

micro-level reform with the potential to affect larger institutional change in Malaysia,

arguably one of Asia's largest Muslim democracies. In a context where women make

up 49% of the current population, government is increasingly concerned with gender

inclusion as a method to catalyze its new innovation-driven economy. However, the

provision of opportunity- infrastructure, grants, quotas, short-term programs- alone

is not enough to motivate entrepreneurial behavior. By making certain adjustments to

the public education and legal systems, institutional entrepreneurs are beginning to

challenge cultural conventions. The reflections of 30 local entrepreneurs featured in

the documentary offer an opportunity to discuss possible alternative outcomes that

unfold when a nation seeks to promote innovation, particularly among women. The

initial documentary effort also seeks to examine ways in which longitudinal studies

captured in film may contribute to a new way of influencing data-driven policy-

making and campaigning.

Thesis supervisor: Lawrence Susskind

Professor of Urban Studies & Planning

Contents

Introduction

- Documentary film featured on Malaysia Sustainable Cities Program website
- The ethnographic vignettes highlight government's provision of opportunity for entrepreneurship, the current perceptions of institutional entrepreneurs in Malaysia, female entrepreneurs who have reconciled their pursuit of an active public life with their faith and values, and the education ministry's current experimentation with entrepreneurship education programs.

Evidence

Unlike a traditional thesis, I did not set out with a particular set of goals to accomplish. Rather, I began with a desire to record what I saw and cull ideas from the footage I captured for an exhibition featuring women leaders in Malaysia. In the winter and summer of 2014, I visited Malaysia to interview female intra- and entrepreneurs and inquire about their experiences as leaders. I wanted to hear what they had to say about coming to terms with their sense of themselves in a rapidly changing Asian, predominantly Muslim, economy. I spoke with a wide range of women from different racial, socioeconomic, age and religious backgrounds. Despite the ethno-religious tensions in the country and contentious economic development plans, these women had an inspiring optimism and sense of pride at being able to effect micro-level change in their communities. Their success was independent of whether government had facilitated more entrepreneurship opportunities for women.

By presenting their stories, I seek to contrast actual cases with the policies (and the theories behind them) that are used to justify the government's commitment to sustainable growth through innovation. Ironically, the contributions of many entrepreneurs in Malaysia do not take the form of knowledge or technology transfer, so typically of what we think of as essential to innovation in the West. Rather, innovation in these cases hinges on participation in a process of domestic institutional reform at the grassroots and community level. I argue that Malaysia's obsession with building an "innovative," "high-income nation" has obscured

important processes of micro-level reform that are needed to produce larger structural change.

My own personal interest in entrepreneurship emerged in part from my past experiences working with both failed and successful start-ups in Asia. Thus, this thesis is my tribute to the changing role of female leaders at a time when national economic demands shape individual conceptions of agency, which, in turn, influence the decisions of various women to create links springing from shared adversity to transform largely patriarchal institutions.

Over the course of six months, I interviewed over 30 institutional entrepreneurs focused on tech-based or social innovations pertaining to transforming urban and civic development. Of these respondents, 20 were women. The questions that I asked fell under two categories. On one hand, I was interested in understanding women's process to ascending into positions of leadership, whether government's policies or programs helped or whether other motivations propelled them to break out of stereotypes, and what they perceived to be the primarily factors for their success. On the other hand, I sought to understand the different types of urban and civic innovations that were presumably of interest to government and thus garnered support (either through policy change or instituting new guidelines in various blueprints), and the cultural and political barriers to implementation entrepreneurs faced on the ground.
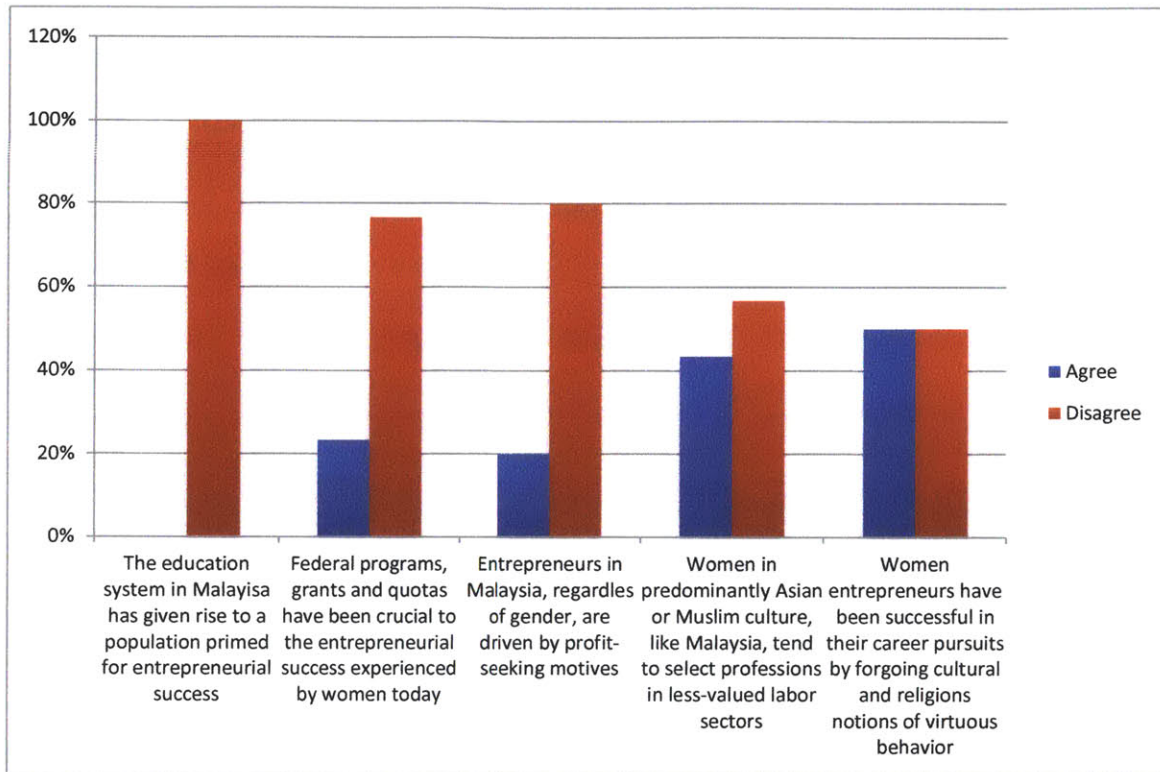
Based on the interviews, the three most salient points to consider are the following:

- The current education system is not preparing the population for the longer-term goals of achieving an innovation-based economy.

- Federal grants and short-term programs aimed to help women become more effective labor force participants and entrepreneurs are not actually addressing institutional problems of gender equality.

- Entrepreneurs in the new economy, regardless of gender and sector, are not driven primarily by profit-seeking motives (hence the smaller-than-expected impact of federal grants).

The less salient, but informative point that may shed light on women's success in Malaysia's entrepreneurship-driven economy has to do with the ability of women (and men) to reconcile their distinctly cultural and religious identities with the growing demands of national economic competition.

- Half of the women attributed the reconciliation of work-family balance to the built-in 'infrastructural support' within Malaysian families (i.e. spouses, grandparents, and other kinship networks) that may be more prevalent in Asian or Muslim cultures as opposed to those of the West.

By examining the gap between government's efforts to promote entrepreneurship for women and the motivations of actual women entrepreneurs, I have tried to document the experience of female entrepreneurs seeking to reconcile Malaysian cultural norms with the espoused government support for economic growth through entrepreneurial efforts.

The documentary offers evidence of how government policy aimed at supporting female entrepreneurship is presumed to work. More importantly, it contrasts the objectives of government policy with what successful female entrepreneurs report were the most important factors that helped them succeed.

Entrepreneur	Opportunity (provision)	Motivation (factors via experiential hardship)	Role
Mangaleswary Kumarasamy	N/A	Land rights, law, religion, education	Indian political activist
Mei Phng & Li-kheng Phng	family	Religion, environmental sustainability, family	Intergenerational Chinese entrepreneurs
Adelene Foo (& Cheryl Goh)	Education	Improving public transport, changing taxi culture	Chinese corporate turned entrepreneur
Cheryl Yeoh	Government	Tech entrepreneurship	Govt entrepreneur
Gabby Goh	N/A	Education	Chinese journalist
YB Chong Eng	Education/ government	Gender equality	Chinese politician
June Low	N/A	Education, women's rights, public health	Chinese activist
Yasmin Mahmood	Education	Education, tech entrepreneurship	Malay corporate leader
Zuraidah Atan	Government	Disaster relief, youth employment	Malay corporate & nonprofit founder
Marina Mahatir	Education	Women's rights, AIDs awareness	Malaysian activist
Zainah Anwar	Education	Religion, Women's rights	Malay feminist
Asma	Education	biotech solutions for bottom of the pyramid	Malay politician, prof & businesswoman
Kevin Low	Education	Sustainable development, education	Singaporean architect
Cristabel Tan	Education	Education Blueprint consultant	Indo Chinese teacher
Xinci Chin	Cradle fund (gov)	Crime & safety	Chinese entrepreneur
Shirmein	Cradle fund (gov)	Transportation and delivery (food)	Chinese entrepreneur
Sabariah	Government	Women's rights, education	Malay politician
Nisha Faizal	N/A	environmental sustainability & education	Indian nonprofit founder
Khairul Juan Mazwan	Education	Tech entrepreneurship, education	Ministry intrapreneur
Maimunah Jaffar	Government	Sustainable development	Malay corporate leader
Noraini Mohd. Tamin	Government	Sustainable development	Malay politician
Irina Safitri Zen	Education	Sustainability, education	Malay professor
Shuhana Shamsuddin	Education	Spatial identity, sustainable development	Malay professor
Ambiga Sreenavasen	Education	Human rights, education	Indian activist, lawyer
Jemilah Mahmood	Education	Disaster relief, women's health	Malay doctor, activist
Farhana Ayush	Education	Women's health, education	Malay doctor, activist
Maverick Foo	N/A	Tech entrepreneurship, education	Startup
Mike Bikesh	Education	Tech entrepreneurship, education	Indian incubator founder
Arlida Arliff	Government	Sustainable development	CEO of Investment Co
Bob Tan	Education	Community investment	Chinese VC
Ai-Ching Goh	Education	Tech entrepreneurship (Piktochart)	Chinese entrepreneur

Organization/ Abbreviations	Type	Sector
Ministry of Education	Government	Education
MDec (Multimedia Development Corporation)	Government-linked company	Tech
MaGIC (Malaysia Global Innovation Center)	Government-linked company	Tech
Ministry of S&T	Government	Innovation
1337, The Nest, Tandemic	Incubators	Private
Ministry of Women, Family, Community Development	Government	Gender & community empowerment
PWDC (Penang Women Development Corporation)	Government	Gender & community empowerment
Shah Alam City Council	Government	Muncipal mgmt
IRDA (Iskandar Regional Development Authority)	Public agency	Regional development
Amanah Ikhtiar	GLC	Women's entrepreneurship
YSS (Zuraidah & MOE)	Government-linked agency	Volunteerism
Google	Private	Tech
Sunway Group	Private	Real estate
AKEPT	Government-linked	Human capital development
MyTeksi, Watch Over Me, Delivereat, Nashata, Kickstart, Mind Valley	Start-ups	Private

Motivations of entrepreneurs

Deeply motivated by religious convictions, a personal sense of justice, and dissatisfaction with the current education system, the female entrepreneurs on whom I have focused have opted out of traditional paths to corporate success. They took risks against the advice of many, and challenged authority in numerous ways. They served as intermediaries to spur micro-level reform at the grassroots level.

Through these cases, we see how women are ideally positioned to participate in the "new Malaysian economy," but in different ways from what the government may have intended. These cases provide evidence that women are active contributors to institutional innovation that succeeds when they can broker relationships between various communities and decision-making entities. Many have not relied on

government-sponsored training programs. In fact, they depended more on their immediate social ties than on government support. The significance of personal networks, both formal and informal, has influenced the ways in which these women entered the innovation ecosystem, navigated through the opportunities proffered by government (grants, training programs, etc.), and rallied enough support to enable change. In some cases, female entrepreneurs found ways to make it politically costly to those maintaining the status quo, and hence, what began as individual efforts became broader community efforts sustained by the innovation ecosystem.

I wanted to highlight the parallel significance that educational networks have played in entrepreneurship. As the origin of some of these innovation networks, "the social system of a school is a network of relationships spreading throughout the whole community and far beyond it."[1] I use the example of the pilot entrepreneurship program in which I participated, though an idea for future research may be to examine networks of Kolej Tunku Kurshiah (TKC), an elite all-girls boarding school which has churned out an inordinate number of Malaysian female leaders in the past few decades. Several alumnae from TKC attribute the importance of those networks in their own mobilizing and enterprise-building endeavors, which signals the potential for competitive, school-based networks to influence women's propensity toward entrepreneurship.[2]

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[1] John R. Seeley; R. Alexander Sim; Elizabeth W. Loosley . *Crestwood Heights: A Study of the Culture of Suburban Life.* 1956. *New York: Basic Books, Inc*

[2] Rob Moore & Michael Young. 2001. Knowledge and the Curriculum in the Sociology of Education: Towards a reconceptualization. British Journal of Sociology of Education, Vol. 22 Issue 4

Methodology

By examining the government's many efforts to promote entrepreneurship, I began

to map out a preliminary landscape of the innovation ecosystem in Malaysia[3]. Of the

260 organizations, only 10 are female-focused, but the numbers are improving. Of

this preliminary network of 260 organizations, I directly engaged with 14

organizations and made contacts in numerous other ones from which my search for

female entrepreneurs innovating specifically in urban and civic development sectors

sprung. Through my interviews with over 30 entrepreneurs, 20 of which are female, I

found that the factors that motivated them include religious faith, personal hardship,

and discontent with domestic educational opportunities. These views are not limited

to Muslim women, but Malaysian citizens of various ethnic and religious

backgrounds. To supplement my interviews, I also examined data from a Ministry of

Education pilot program to teach entrepreneurship skills to local undergraduates. As

part of that effort, I worked with 32 students, brainstormed social issues confronting

urban Malaysia, went through a process of ideation, funneling solutions, drawing up

initial business plans, and partnering with local incubators and investors to help

students bring their solutions to market. At the end of two months, the students

presented their ideas to investors and government representatives. It was amazing to

hear students speak passionately about issues confronting their cities and see how

they developed solutions to be part of the transformation of their communities.

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[3] Refer to Appendix B for a map of the current entrepreneurship ecosystem

Research limitations

There are certainly limits to the external validity of this work. I did not draw a random sample of Malaysian women. I looked only at a small number of cases. The difficulty of studying entrepreneurship is that "larger-than-life" personalities are often involved. It is hard to generalize from these stories. That being said, the Malaysian government seeks to create an entrepreneurial nation. In this context, one of the main questions confronting 49% of the population is how women will make their daily lives congruent with their religious faith while simultaneously moving in and with the world, especially given the increased pace of change in Southeast Asia. The reflections of the female leaders on whom I focused offer an opportunity to discuss and negotiate possible alternative outcomes that unfold when a nation seeks to promote innovation and entrepreneurship, particularly among women.
Although much of what I have to say is generally known and accepted, I will provide new interpretations in the context of a rapidly changing Asian economy.

Context & Background

Infrastructural provision of opportunities for entrepreneurship & innovation

Toward a high-income nation status
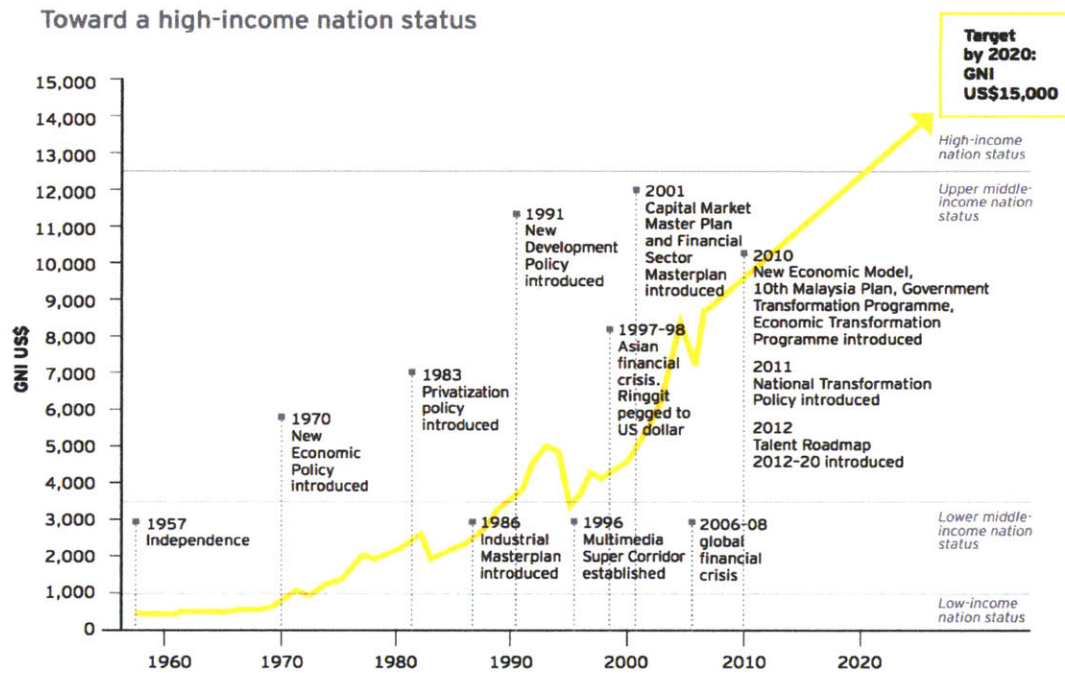
In attempt to create a national high-tech, innovation economy, the Malaysian government began to plan, design and build the multimedia super corridor (MSC) in 1995. Modeled after the Silicon Valley and emerging from Cyberjaya in a three-phase plan supported by the Malaysian Development Economic Corporation (MDec), Bank Negara Malaysia (BNM), and the Ministry of Education (MOE), the MSC was a 15 x 50 square kilometer corridor intended as a pilot that would be replicated in five development zones across Malaysia.

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[4] Ernst & Young "KL Calling: The Rise of Kuala Lumpur as an investment destination." 2014 EYGM Limited.

Cyberjaya, the innovation hub, and Putrajaya, the administrative hub, were conceptualized in stage one as Malaysia's examples of smart cities which would catalyze seven other smart city initiatives projected to attract over 1,000 companies and create over 20,000 high-value jobs[5]. This plan was inaugurated as the beginning of Malaysia's transformation into an innovation economy to achieve Vision 2020. In less than a decade, the MSC was presumed to grow the economy by tripling the number of jobs and doubling investment, but reality fell short of expectations. After spending over RM 35.4 billion (10.2 billion USD) and eight years later, the number of jobs have dropped by 20% and investment has only gone up by 6%[6].
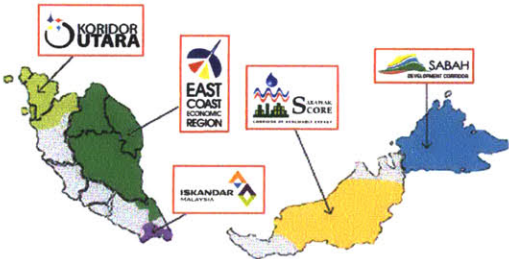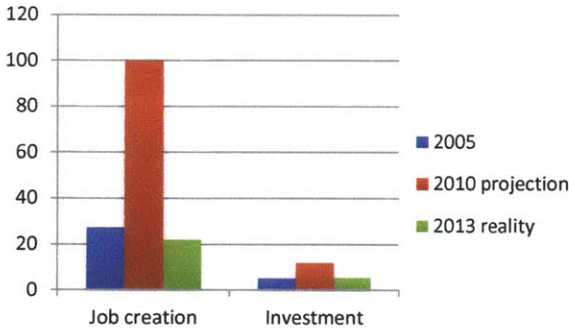
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In 2012, the Malaysian treasury allocated RM 978 million[8] (289 million USD) to accelerate development of the five corridors of the nation. Iskandar Redevelopment Authority was provided RM 308.5 million to readapt plans for Educity in Nusajaya,

[5] Landscape Masterplan for Cyberjaya. 1997. Federal Department of Town and Country Planning

[6] Off-record interview with managing director of Iskandar Investment Berhad

[7] Malaysia Economic Monitor Boosting Trade Competitiveness June 2014. World Bank IBRD/IDA
http://www.epu.gov.my/documents/10124/bef75aba-f5a4-47d4-b572-969851666293

[8] Economic Management & Prospects Report 2012-2013.
http://www.treasury.gov.my/pdf/economy/er/1213/chap1.pdf

Port of Tanjung Pelapas and Pasir Gudang industrial zone. [9] The Northern Corridor

Economic Region (NCER) was allocated RM 51.6 million to implement 20 initiatives

including Koridor Utara, Kulim High-Tech Park, Koridor Selatan and Proton City,

and ecotourism development of Kuala Sepetang mangrove forest and Kuala Gula

Bird Sanctuary. The East Coast Economic Region (ECER) received RM 349.6

million for ecotourism in Endau-Rompin National Park, Lake Chini State Park and a

halal gelatin plant in Pahang. The Sabah Development Corridor was given RM 207

million for Lahad Datu palm oil cluster, Keningau Integrated Livestock Center, and

the Sabah Creative Content Incubator Center. Finally, the Sarawak Corridor of

Renewable Energy (SCORE) was allocated RM 62.3 million to conduct a feasibility

study for a science park in Mukah, and design road access to the port and the

Samalaju water supply. While these projects have attempted to learn from the MSC,

they have yet to realize the full-fledged characteristics of an innovation economy.

While the infrastructural "hardware" for a successful knowledge hub has been

established- universities, government agencies, research centers, incubators, and tech

companies- the MSC has faced its share of adversity over the past two decades. The

general opinion from civil society is that the money invested into the MSC was a

waste because the cities created are inconveniently located and unlivable. One

resident entrepreneur shared that when President Obama and Prime Minister Najib

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[9] Iskandar Malaysia Development Plan http://www.iskandarmalaysia.com.my/downloads/blueprint-for-iskandar-malaysia

Razak visited Cyberjaya to inaugurate MaGIC (Malaysian Global Innovation Center), just down the street one block over, residents did not even have water connections to their homes. When I spoke to a high-level ministry official who was provided the option of subsidized housing in Putrajaya, the new administrative capital, even she admitted that she would rather pay more to live in KL. Nearly a decade after its development, scholars still bemoan the fact that the "software," the creative element and entrepreneurial energy required to sustain such a physical creation is completely lacking.[10]

"...the Malaysian technopole has made progress in these [physical] factors albeit at various degrees. However, the MSC falters on the entrepreneurial aspect. The impediments to continued success include the attitude towards risk-taking and the general lack in innovative spirit ..."

In effort to infuse the high-tech shell with "innovative spirit," the Malaysian government has taken steps to support entrepreneurial efforts. On paper, government has proposed many macroeconomic policies and blueprints. Different government departments –Ministry of Education (MOE), Multimedia Development Corporation (MDec), Agensi Innovasi Malaysia (AIM), Prime Minister's Office (PEMANDU), Malaysian Global Innovation Center (MaGIC)- have experimented with ways of finding and grooming local talent. These programs and reforms are aimed at modifying the educational system and boosting female participation in the

[10] Ramasamy, B. (2004). Malaysia's leap into the future: an evaluation of the multimedia super corridor. Elsevier Science Ltd. Technovation 24 (2003) 871-883.

workforce. In particular, the Education Blueprint of 2013[11] which was conceived over a course of two years costing the Ministry of Education roughly RM 20 million to McKinsey & Co., had the intention of boosting entrepreneurship education in effort to combat high youth unemployment rates and encourage the growth of small businesses to catalyze job creation[12].

While the Malaysian government is increasingly pinning its hope for economic growth on creation of small and medium enterprises (SMEs) and entrepreneurial, venture-backed companies, the same statistics which report a steady economic growth rate of 4% per year, rising private investment at 11.8% (according to Bank Negara), an 11.3% growth in the number of tech companies in the Multimedia Super Corridor (from 2000-2011 Annual Report), numerous mandates to create entrepreneurship centers within universities and sustained growth in GNI per capita to 10,060 USD in 2013, also report the disparaging fact that though women comprise 55.4% of the total workforce, only 32% occupy leadership positions[13]. According to a World Bank study in 2012, Malaysia stands as Southeast Asia's lowest female employer. Some scholars attribute this low employment rate to religion's potential effect on women's employment choices[14].

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[11] Valerio, Alexandria; Parton, Brent; Robb, Alicia. 2013.*Framing the global landscape of entrepreneurship education and training programs*. Washington DC : World Bank. http://documents.worldbank.org/curated/en/2013/06/18347783/framing-global-landscape-entrepreneurship-education-training-programs
[12] http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf
13 Refer to Appendix C for US-Malaysia comparison statistics
14 Shahina Amina, Imam Alam. Women's employment decisions in Malaysia: Does religion matter? Journal of Socio-Economics Volume 37, Issue 6, December 2008, Pages 2368–2379

Women's employment in Southeast Asia 2012
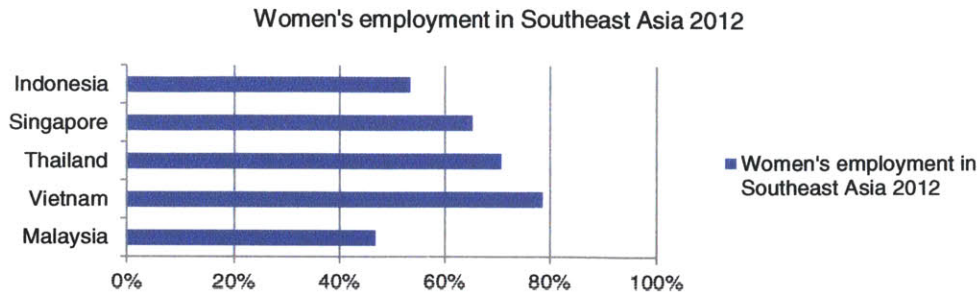
One year after the creation of the Education Blueprint of 2013, the results have left much to be desired. In theory, Malaysia seems to be "on track" in meeting the broad national goals outlined in its Economic Transformation Program, but in practice, simply because key performance indicators (KPIs) are met, does not mean that the Malaysian economy is growing as effectively as it could. Though the Blueprint has spurred the development of education programs and entrepreneurship grants, many of which target women in efforts to boost GDP growth by 2%[16], there has been little effort to evaluate "what works and what does not." [17]

In fact, the abundance of opportunities and support in Malaysia for budding entrepreneurs can be overwhelming for people seeking to navigate, penetrate or simply understand what might be called the innovation ecosystem, a complex network of relationships that is formed between agents whose functional goal is to enable entrepreneurship development and innovation[18]. In recent years, the National

15 Women's participation in labor force 2012. Data compiled by ILO, Bloomberg, World Bank & DataMarket. https://datamarket.com/data/set/28mx/#!ds=28mx!2rs5=7.w.2c.4.50.5l.3z.4s.3s.10&display=line
16 Idris Jala, "Getting women back to work." http://etp.pemandu.gov.my/Transformation_Unplugged-@-Getting_women_back_to_work.aspx
17 Interview with Imran from MDec
18 Amnon Frenkel & Shlomo Maital. Mapping National Innovation Ecosystems: Foundations for Policy Consensus– September 30, 2014.

Science Foundation (NSF) and Aspen Institute have created models of mapping

entrepreneurship ecosystems[19] which inspired my initial effort to make sense of the

opportunities currently available in Malaysia[20].

Because the turnover rate of agencies and programs is so high, many tend to have

overlap in their loosely defined goals. In the Malaysian Development Economic

Corporation (MDec) alone, 2 of the 7 programs under the talent division are

experimenting with technology entrepreneurship programs, and one of those two is

specifically aimed at girls in the tech sector. But government-linked agencies like the

Malaysian Technology Development Corporation, iM4U from the Prime Minister's

office and Amanah Ikhtiar[21] from the Ministry of Women, Family & Community

Development also provide similar opportunities[22].

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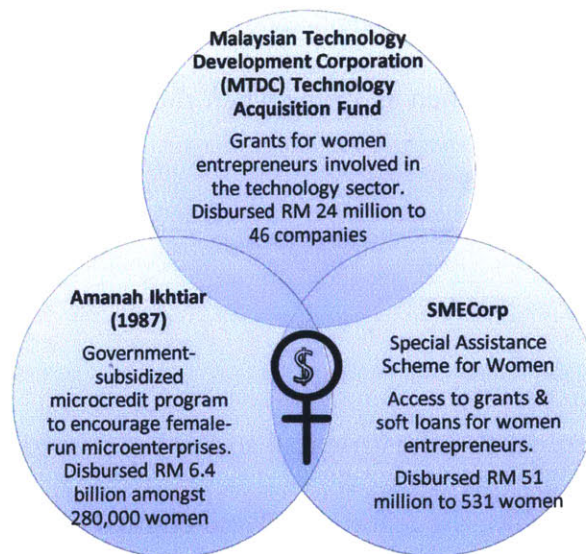
[19] Entrepreneurial Econsystem Diagnostic Toolkit. Aspen Institute ANDE & UK DFIF joint-publication December 2013.
http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/FINAL%20Ecosystem%20Toolkit%20Draft_print%20version.pdf
[20] Appendix B Map of Malaysia's entrepreneurship ecosystem
[21] Islamic Microfinance AIM. http://wief.org/wp-content/uploads/2012/04/Datuk-Hajah-Zabidah-Ismail.pdf
[22] Bank Negara Report, "Enhancing Capacity & Capability of SMEs."
http://www.bnm.gov.my/files/publication/sme/en/2005/chap_5.pdf

All these opportunities signal that Malaysia wants to shape its public image as a progressive Muslim democracy by instituting, on paper, policies aimed at promoting gender equality. For example, in 2001, the federal constitution amended Article 8 to prohibit gender-based discrimination. Then, in the 1995 World Conference on Women, Malaysia ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) which effectively questioned the legitimacy of several constitutional amendments with regards to gender bias. Two out of five articles were successfully placed under review, though CEDAW compliance has yet to be made enforceable under domestic law[23]. Because Malaysia operates under a dualistic legal system, there are clear bureaucratic and cultural obstacles in terms of implementation of laws. For women in particular, the obstacles to becoming effective changemakers are significant. Under restricted civil liberties, resources and entitlements, Malaysian women have had particular challenges in terms of reconciling their identity as virtuous Muslim women at a time when the national economy calls for a dynamic shift in women's roles.

Research question

Despite the Malaysian government's infrastructural and policy provision of opportunities for entrepreneurship, the institutional and cultural obstacles are non-trivial. Given the context of Malaysia, what factors have led to the success of the

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[23] Zarizana Abdul Aziz. July 2008. Mechanisms to Promote Gender Equality in Malaysia: The Need for Legislation. http://wccpenang.org/wp-content/uploads/2013/06/The-Need-for-Malaysian-Gender-Equality-Legislation-by-Zarizana-Abdul-Aziz.pdf

women leading innovation-driven businesses and entrepreneurial efforts? I'm

interested in the underlying reasoning that gave rise to government-sponsored efforts

to promote entrepreneurship in particular ways, especially the form these efforts have

taken in predominantly Asian and Muslim cultures amongst female entrepreneurs.

Reconciling the paradoxical identity of the entrepreneurial woman

Although the law in Malaysia does not make any distinction between the genders,

there are Malaysian customs and traditional practices that make a distinction between

the role of men and the role of women in the exercise of certain social, economic or

civil liberties[24]. The government has attempted over the past few decades to re-align

certain culturally-informed gender perspectives in its policies regarding gender

inclusiveness. This is particularly true with regard to access to education. Despite the

increased opportunities for women to expand their roles in the economy, mainstream

Malaysian culture still seeks to enforce many of the traditional gender stereotypes

related to the dominant interpretation of women's roles in the Qoran. For example,

certain states still adhere to gender-segregation policies which prohibit women's

access to public amenities (supermarkets, theaters, pools, etc.)[25], and yet, women are

still expected to participate in decision-making processes in relation to public life[26].

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[24] Interview with the Secretary General of the Ministry of Women, Family & Community Development (LPPKN)
[25] Shadow Report Group (2005).NGO Shadow Report on the Initial and Second Periodic Report of the Government of Malaysia Reviewing the Government's Implementation of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) Coordinated by the National Council for Women's Organisations (NCWO) in collaboration with the Women's Aid Organisation (WAO) Prepared by the NGO Shadow Report Group 2005
[26] United Nations Committee on the Elimination of Discrimination against Women (CEDAW) (2004) Consideration of Reports Submitted by States Parties Under Article 18 of the Convention on the Elimination of All Forms of Discrimination against Women: Malaysia, Combined Initial and Second Periodic Reports of States Parties, CEDAW/C/MYS/1-2, CEDAW, New York

Female entrepreneurs in Malaysia seem to be faced with an existential paradox. While development theorists have argued that nations will develop more rapidly if they are "willing to break with institutional ["remnants"] of an earlier period and accept the social and technical innovations which are part of the new industrial order," this has not been the case in Malaysia[27]. Contrary to the expectations raised by the way that economic development has unfolded in other Western nations, urbanization and public education have not led to a decline in religious observance in Malaysia[28].

Instead, the state-influenced system of education has served to promote Islam's gender-specific notions of virtuous behavior. While Malaysia on the whole has embarked on an aggressive trajectory of economic growth, there is still a prominent cultural aversion toward risk-taking, which many of the entrepreneurs I interviewed, regardless of gender, characterized in terms of the Asian tendency to *gia-su* ("fear loss"). It is important to acknowledge that few problems in the public arena are as challenging as this: simultaneously setting and meeting development targets while managing cultural mindsets and customary beliefs.

While it appears that Malaysia's overall women's workforce participation rate and pursuit of higher education have increased, there are ways in which these trends mask

[27] McClelland, David (1961). The Achieving Society. D. Van Nostrand Company Inc.
[28] Mahmood, Saba. (2005). Politics of Piety: The Islamic Revival & the Feminist Subject. Princeton University Press

significant problems. According to my interview with the Ministry of Women, Family

& Community Development, it appears from 2004-2014, women's pursuit of higher

education increased from 60 to 68%. From 2004-2014, women's employment in

Malaysia has seen an apparent increase from 47 to 52%, but only 7% of board

members are women and less than 5% have taken the risk to start their own

ventures[29]. It is against this backdrop that I came to Malaysia to understand how

women participate in the country's national commitment to expand entrepreneurship

and innovation. In particular, I want to focus on role of public education in

influencing Malaysia's future success as an entrepreneurial nation.

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[29] Global Entrepreneurship Monitor in Malaysia, 2010 report. http://www.gemconsortium.org/docs/download/754

Theory

The importance of studying motivation in addition to opportunity

While government can make opportunities for innovation more accessible to its 30 million citizens, it is clear that the motivation to sustain innovation must come from elsewhere[30]. Through my field interviews, I found that most successful female entrepreneurs are primarily motivated by issue-based, grassroots efforts with the potential to support domestic institutional reform in Malaysia. I am interested in how these women have tried to redefine their roles in a changing economy, despite customary and political practices that make such changes very difficult.

Inspired by Schumpeter[31] in the 1900s, and extending well into the end of the last decade, the theory of creative entrepreneurship has evolved. Championing the "agent of innovation," Schumpeter developed his entrepreneurship theory in attempt to understand the evolution of developing economies and political volatility of these markets. Fast forward to the 1990s, when Hirschman noted that, "When economists build models of growth, they typically do not give explicit independent roles to the ability or *motivation* to solve problems ...".[32] Past research on entrepreneurial motivation has been limited to two primary factors: the propensity toward profit-

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[30] Gooch, Liz. The Loss of Young Talent Thwarts Malaysia's Growth. New York Times Oct 1, 2010.
http://www.nytimes.com/2010/10/02/business/global/02brain.html?pagewanted=all&_r=0
[31] Schumpeter, J.A., *1934 (2008), The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle*, translated from the German by Redvers Opie, New Brunswick (U.S.A) and London (U.K.): Transaction Publishers.
[32] Hirschman, Albert. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States.* Cambridge, MA: Harvard University Press, page 19

seeking motives and the desire to increase greater production efficiency. While those motivating factors are important on an aggregate scale, there is a gap in studying entrepreneurial motivations driven by personal factors, particularly for women in predominantly Muslim, Asian nations. The general assumption is that women historically have faced institutional barriers, but given the extra cultural, religious and economic demands, how have they managed to create their own sense of agency?

In Malaysia, we witness the haste toward modernization accompanied by haphazard urban growth, ambiguous laws, and makeshift institutions which attempt to reconcile the development of the workforce and the changing economic role of women. The sense of urgency in moving the economy in a new direction is powerful, but at the same time the policy efforts to facilitate gender equality and entrepreneurship are fraught with implementation challenges. Currently, Malaysia has entered into a frenzy of sorts to boost female leadership and participation in the workforce by setting quotas. This is supposed to incentivize women to stay in the labor market longer. However, we should ask how this problem might be framed differently to shift the discussion beyond how individual women think about their job and career choices and move toward addressing structural and institutional problems.

There is some published literature that explores the tensions that women have faced in the pursuit of work, while managing societal perceptions of gender roles. Claudia Goldin breaks down the "quiet revolution that transformed women's employment" in

the US into four phases where women's roles shifted from labor participation to attachment and identity with career and finally the ability to make joint-decisions with spouses[33]. In her highly referenced and popular book, *Lean In*, Sheryl Sandberg explores the roles that individual women have in claiming their presence in the workforce. This stands in contrast with Anne-Marie Slaughter's more institutional perspective on gender dynamics. Other writers such as Wendy Brown and Barbara Ehrenreich discuss the inequality in power that underlies labor dynamics and work-family balance. Most of the insights from this research signal that certain types of work are undervalued. This naturally begets undervalued positions which people, generally women and minorities, tend to hold[34]. Other scholars have sought to understand the context in which leaders and followers emerge and wonder why women haven't made progress faster. Professor Barbara Kellerman points to the "pipeline syndrome" where women are told that patience and attitude will pay off, but that "this is a lie that silences women." Professor Jane Mansbridge highlights this point by saying women tend to avoid behaviors that are criticized, alluding to the situation where women who negotiate hard are often seen as aggressive and therefore undesirable, whereas men who exhibit similar behaviors are lauded as confident, competent, etc.[35] These are all examples of implicit modes of discrimination that are deeply ingrained in Western cultures, although not formally institutionalized as legitimate.

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[33] Goldin, Claudia. 2006. The Quiet Revolution that Transformed Women's Employment, Education and Family. NBER Working Paper
[34] Ehrenreich, Barbara. 2000. Maid to Order: The Politics of Other Women's Work.
http://barbaraehrenreich.com/website/maidtoorder.htm
[35] Babcock, Linda. 2003. *Women Don't Ask: Negotiation and the Gender Divide*

In Malaysia, such implicit modes of discrimination are present along with structural modes of discrimination. Some are contained in Shariah law which "perpetuate stereotypes of gender-appropriate behavior."[36] There are innovative efforts to lobby for changes in such legal provisions, and to build individual awareness among women, but generational mindsets are ingrained in managerial and organizational values and will take a long time to shift.

By examining multiple cases of entrepreneurship in Malaysia, I can see that it is not necessarily the desire to accumulate profits or ease of access to opportunities that have motivated women to innovate or push for social change. Rather, their exposure to international educational opportunities has helped them to find gaps to fill in Malaysian society. For example, some young entrepreneurs observed the international trend of mobile apps catering to public services such a transportation, food delivery, and safety and adapted those apps to their local context. For some, personal experiences and hardships have has been instrumental in motivating them to take action while simultaneously managing social and cultural expectations regarding the role of women in society that have not changed. It is important to note that the entrepreneurial success of the women I interviewed largely depended on their ability to gain access to specific communities, understand the needs of these communities, and leverage their own existing networks to create value by linking between communities to decision-making entities.

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[36] Interview with Zaina Anwar

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In relation to entrepreneurship theory and building upon previous work on mapping

innovative networks, I interviewed these women to determine their ability to

influence decisions in their innovation networks. While the power dynamics in these

networks are structured differently between start-up communities, corporations,

nonprofits, and ministries, the entrepreneurs provide sufficient links to mobilize

communities and other entities to get behind issues they deem important.

In the Malaysian context, this is crucial. For example, when lobbying for certain

amendments to Shariah law, Zainah had to identify the ministerial-level agents as well

as those in media and religious courts whose support was needed to create the

institutional links required to enact legal change. When Mangaleswary realized that

her place of worship would potentially be demolished due to ambiguous land rights,

she switched from being a corporate lawyer to a public advocacy attorney to help the

Tamil population in Penang articulate their property rights. When Adelene tried to

change the entrenched reputation of the taxi industry, she had to understand the

plight of taxi drivers as well as the views of passengers who use taxis, identify the

links between auto companies and the transportation and health departments to find

the most effective way to work within regulatory boundaries. The stories go on and

on. The women with whom I spoke are not only trying to create new enterprises,

they are making attempts to solve long-standing problems. While they are operating

in different sectors, they share a common commitment to address serious social problems.

For these women, the ability to operate autonomously outside of the formal, institutionalized processes of economic development is crucial. Whether it is implementing old products in new markets, or developing new processes or organizations, most of these women seek to exert pressure on existing institutions in hopes of breaking down barriers. Despite the growing importance of female entrepreneurship in creating local jobs and the Malaysian government's effort to boost entrepreneurship opportunities, little is known about the motivation of Malaysian female entrepreneurs. Hence, this study attempts to explore the motivations of successful female entrepreneurs to improve our understanding of how public policies might better be aimed at changing attitudes and actions in the new innovation-based economy.

Reacting against the emphasis on technology defining an innovation-based economy

In the 20th century, theorists ranging from Schumpeter to Schumacher heralded small entrepreneurial ventures as "potential nodes for technological discovery"[37]. In the Malaysian context, we see many women facilitating innovation at small scales in both the public and private sectors. While some efforts may be highly technical, most

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[37] Schumacher, E.F. (1973) *Small Is Beautiful: A Study of Economics As If People Mattered.* Blonde & Briggs

innovations are not. This means that they often fly below the public radar in a time when government is overtly fascinated by technical, R&D-based innovation. It might be worthwhile to track the growth of less trendy innovations that may impact domestic institution-building in powerful ways.

A few of the common issues that women tend to rally around include better safety, health, education, and public transportation. These are all urban issues intimately linked to women's livelihoods and their children's access to opportunities. One example of a private turned public response to crime and safety is community-based sex education workshops. Due to her experience with the lack of support for women's health in public hospitals, particularly in cases of sexual crime, June Low was motivated to find a way to engage with Malaysian communities where women are more susceptible to rape and abuse. She convinced Sime Darby, one of Malaysia's largest rubber plantation owners, to adopt corporate social responsibility initiatives that would link their products (i.e. condoms) to programs that could have a small, positive social impact. By confronting prominent yet taboo topics such as teenage pregnancy abortion, family conflict, and sexual pleasure, she branched out beyond her official role as a corporate attorney to hold small classes on Sime Darby plantations where she taught plantation workers and their daughters about their bodies in hope that this exercise in confidence-building and heightened self-awareness would empower young people to speak out against immediate problems in their communities as a first step. By working within Sime Darby to develop this programs, June has been an effective intrapreneur -

educating her own corporation about the importance of looking at their supply chain from rubber extraction to product development and condom use, to the social impact the corporation can have on communities. From there, she organized independent workshops on combating gender-related crime and health disparities in urban and rural areas.

June's case is emblematic of intrapreneurship turned entrepreneurship. She was able to convince Sime Darby to allocate a portion of their corporate social responsibility (CSR) budget. She did this in part by analyzing the cost of Sime Darby's annual six-day youth camp in comparison with the benefits of the program she proposed. By locking in financial support from Sime Darby, June was then able to prepare for her workshops by using American online resources such as SIECUS and determining ways to localize the effort in a Malaysian context.

One example of a tech-based response to urban crime is WatchOverMe, one of Southeast Asia's most popular urban safety mobile phone apps, which provides crime-zone alerts and street-safety ratings. As a former kidnap and assault victim, Xinci Chin took months to recover from her fear of traveling alone in urban Kuala Lumpur (KL), even in public places with heavy foot-traffic. Due to this traumatic experience, she was motivated to think about ways to address safety management in KL. She thought that using social media to create awareness of crime zones would be the most effective way to engage citizens on street safety. She partnered with mobile app developers to find a

way to make use of both official and crowd-sourced data in ways that could increase public safety.

Xinci's case is emblematic of a generation of younger female entrepreneurs who were able to benefit from a foreign education, and subsequently returned home to test and implement innovations they observed in other contexts. She notes that while her personal story of experiencing an assault and kidnapping in an urban setting (inspired the idea behind the mobile app) was the reason behind her initial success in landing a prestigious Cradle fund seed grant from the Malaysian government, "a good story can only go so far."[38] Through her education and experiences meeting other young entrepreneurs in the US, she was able to quickly build momentum and produce a beta version of her mobile app by bringing together a supportive network of international coders, designers, and social media enthusiasts.

In both of these cases, we see female entrepreneurs who have been privileged enough to "escape" the existing Malaysian education system and have returned to address systemic social issues that resonate deeply with their own experiences. The simultaneous attempt to make sense of their personal hardships while empowering local communities gave these entrepreneurs the opportunity to create businesses that help provide citizens with tools to enable agency at both individual and group levels.

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[38] Interview with Xinci, founder of WatchOverMe

Success factors

Providing the missing link: Creating a trusted stakeholder network

Critical to their innovative efforts, is the ability of the women I studied to identify linkages and see the connections among stakeholders. The success of these female entrepreneurs lies in the fact that they understand the issues facing their communities, in a personal way, and are able to form strategic alliances to fight against dominant institutions/ mindsets (religious, education, age-old industries that were male dominated) to create a new understanding of what it means to be an Islamic democracy, reframe social movements & reformulate the goals of economic growth. For example, Sisters in Islam empowers women by creating a public voice on what it means to believe in an Islam that champions gender equality; MyTeksi prioritizes social key performance indicators, such as the improvement of the quality of life of drivers, in their annual business evaluation; the Penang Women's Development Corporation seeks to reform local land policies to protect minority rights to access basic needs.

One of the determining factors in the success of these women was their access to a social network (that emerged from prior experiences) that allowed them to build relationships with those involved in national and state-level policy-making as well as with grassroots leaders and those on the ground. Some of these networks are faith-based, while others are issue-based.

Unwilling to turn their backs on what appears to be an array of persistent social problems in Malaysia (the country's economic growth not withstanding), some female leaders have shifted their attention to the dynamics of everyday life, where they perceive a failure of public education and lack of political leadership with regard to advocating for changes in attitudes toward the role of women in society, despite the desire of government to enlist women in economic activities to regain regional competitiveness.

For the most part, the women I interviewed tended to focus on single-issue campaigns related to changing some aspect of a community living standard. Some women have employed a grassroots strategy, where they sought to listen to and empathize with hundreds of disgruntled community members. From there, they were able to leverage their connections and expertise to bring local grievances to the attention of state, regional and federal committees or agencies. In such cases, these women not only provided the link required to enable change, but also developed innovative ways to communicate problems to political authorities and convince them that the changes they are seeking will result in mutually beneficial outcomes.

One example of creating such a link is the case of MyTeksi or GrabTaxi, Malaysia's top taxi app and Uber's main competitor in Southeast Asia. According to Adelene, the general manager of GrabTaxi, the inspiration for creating better, safer public

transit for Malaysia's average citizen actually came from a passing comment made by an Indonesian friend who visited Malaysia and was overwhelmed by the transportation chaos, claiming that "even Jakarta has better, fast public transit than KL." Just two years ago, most Malaysians were afraid of taking taxis and public transportation because taxi drivers had a bad reputation for cheating and even kidnapping passengers.

The initial MyTeksi team was motivated to reduce the social stigma attached to the taxi culture, while increasing the efficiency of transportation in urban KL. The founder at the time had a grandfather who owned a large automobile business, TCM Holdings Bhd., and thus was able to assemble two necessary components: cars and large communities of Malay drivers. The team spent hours talking to drivers about the challenges they faced and the reasons some of them overcharged passengers. From there, they were able to craft educational campaigns for drivers advocating for honest, efficient service in exchange for a fair wage. Recently, MyTeksi has worked with local hospitals to provide free health checkups for taxi drivers of whom 80% in Malaysia suffer from obesity.

By gaining the trust of Malay drivers, the team was able to cultivate a larger base of reliable drivers who felt empowered by their role in the mission to improve transit efficiency while their livelihood concerns were also being taken care of. Both the general manager and marketing director of MyTeksi are women who left roles in well-

established corporate organizations to help mobilize drivers on the ground and transportation policy-makers toward a vision of improving health and safety outcomes linked to transportation-related issues. They have succeeded in raising standards, changing perceptions and creating trust amongst stakeholders to build up Malaysia's leading taxi service.

Creating a public voice: Questioning conventional behavior

One of the critical issues confronting female entrepreneurs in Malaysia is how they can remain virtuous in the traditional sense of the word by abiding by Malaysian customs and expectations, while also being the "type of person who thinks freely, is capable of enlightened criticism on important daily issues…" In Saba Mahmood's ethnographic work, *Politics of Piety*, she notes that, "The biggest challenge is how to transform love for God inside every citizen (muwatin wa muwatina) into continuous self-criticism of our daily behaviors and manners, and into an awakening of creative revolutionary thought that is against the subjugation of the human being and the destruction of his/her dignity"[39]

This issue of how women can straddle these two worlds during their ascent to leadership- the desire to remain in step with a society that seeks to be economically and socially progressive while respecting conventional norms- has long been debated

[39] Mahmood, Saba. (2005). Politics of Piety: The Islamic Revival & the Feminist Subject. Princeton University Press, 126

in courts and among *ulama* (Muslim scholars and leaders). There is, in fact, growing concern, especially within the government's religious department and the department of family and community welfare, with the impact of a growing secular culture that is challenging traditional institutions in Malaysian society[40]. It is against this backdrop that many women are questioning the current translation of Islamic or divine law into common law and public policy in Malaysia.

When I interviewed Zaina Anwar, founder of Sisters in Islam, she focused on the dilemma of women stepping into leadership positions in Malaysia while trying to remain faithful to tradition. Anwar notes the case[41] of a female political leader who had thirty men working underneath her, yet, she accepted a formal position that names her a leader "only in cases of emergency" because of her desire to respect the common custom, which presupposes that males will take the lead.

Zaina highlights how this woman breaks the conventional norm in personal and professional realms by being the primary provider for the family as well as leading her department. Yet, in a context where the constitution upholds Shariah law as the basis of Muslim family law, there is an internal struggle to align culturally appropriate behavior with dominant Islamic teachings. Women in these positions tend to experience a cognitive dissonance between taking charge in their public-facing roles and living out their socially prescribed roles as virtuous Muslim women. As we saw in

[40] Hoffstaedter, Gerhard. (2013). Secular State, religious lives: Islam & the State in Malaysia. Journal of Asian Ethnicity. Vol 14, Issue 4

[41] Interview with Zaina Anwar, founder of Sisters in Islam

the case of June and Xinci, sometimes these constraints can have a positive role in

catalyzing innovation and the entrepreneurial endeavors of female entrepreneurs.

In 2013, Nigerian writer Chimamanda Adichie spoke eloquently about the gender

dynamics in her country, "... in workplaces, women who are bosses in Nigeria are

fierce. The people who work for them, men and women, respect them. But, these are

women who very keenly perform gender stereotypes when they go back home. And if

they give a public interview, they have to say, 'My husband supported me and allowed

me to …'"

This tendency is confirmed in many of my interviews with successful female

entrepreneurs in Malaysia. Yasmin Mahmood, the new CEO of MDec, notes that

though she is "very fortunate to have a supportive husband," if she were having

difficulty in coordinating domestic chores in addition to the demands of her job, she

would still be unwilling to enlist her husband's help because she is "not brought up

that way." Several women who choose not to go on record about their partners note

the importance of "[being] upfront about how high you want to climb," otherwise

many men "will not be able to handle your success."[42] One in particular mentioned

that in Shariah law, "the husband is supposed to financially provide for the wife

regardless of the situation," but in her experience, once she started to earn more, her

husband did not see the value of abiding by that legal precept any longer.

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[42] Note interviews with Yasmin & Zuraidah

Adichie continues to say that "by far the worst thing we do to males, by making them feel that they have to be hard, is that we leave them with very fragile egos." This, again, confirms a concern voiced by Yasmin Mahmood, current CEO of MDec, who attributes "the rise of jihadist movements in Muslim nations around the world" to the fact that "many young males feel the pressure to prove themselves." Yasmin notes that as women continue to rise into positions of leadership in the new innovation-based economy, Malaysia also needs to address the "leak" at the other end of "men dropping out of more professional roles."

Though certain critics deem the work of Sisters in Islam (SIS) as "un-Islamic" and rather *bid'a* ("unwarranted innovations or practices" for which there was no precedent at the time of the prophet of Islam), SIS has established a collective network of women with extensive knowledge of the Qoran as well as legal expertise they can use to challenge the way law is extracted from religious texts. They have been lobbying for amendments to be made in Shariah law based on reinterpretation of the Qoran to empower women rather than propagate longstanding patriarchal norms.

In the absence of religious institutions which train women in scholarly Islamic argumentation, it is only in this unique, safe space created by SIS where women can confide in each other and discuss and reinterpret sacred texts. This is essential to the

exercise of moral and legal authority. By generating this awareness, SIS enables women to question conventional ideas of virtuousness while remaining faithful to their religious beliefs.

Educating to change conventions: Implicit gender bias in family & institutions

Through the nationalization and centralized management of religious and educational departments, Malaysia has attempted to control the development of its modern identity and shape its image as a progressive Muslim nation. Many women have voiced dissatisfaction with the current education system and believe that it is responsible for perpetuating certain gender-specific notions of virtuousness, lack of creativity and tendencies toward risk-aversion.

Marina Mahatir, producer of the popular 3R talkshow, believes that the problem with Malaysia' education system is that there is a lack of vision and leadership. She laments the fact that those with the power to make decisions strive to preserve the status quo rather than strive for something truly innovative.

"Does the education system embody a responsible attitude toward society as a whole? Does it teach ideals of constantly agitating for change to improve the system? I find it very disturbing to have to opt out of the public school system. Surely the point of *pendidikan* (from the Malay vernacular meaning much more than just school

education) is to ensure that we carry out our responsibility to bring up honest, confident, just, caring citizens... To do this, I think it's important to examine the many ways in which we are not."

Furthermore, the implicit gender discrimination is prevalent amongst those in leadership positions. In my interview with the vice minister of the Ministry of Higher Education, he mentioned that the current university syllabus is designed "for women to excel." When I prodded him further about what he meant by that, he said that the system works "better for people who listen and memorize" (which he implicitly attributed to women) rather than those who "challenge the status quo," which he attributes as a masculine characteristic. In a nation where there are progressive policies and efforts to include women as an integral part of the national economy, I was surprised to discover that some of the leaders exhibited strong implicit gender bias in their views on student performance in the current education system.

Dato Asma, director general of Malaysia's Ministry of Higher Education, bemoaned the fact that while government provides countless opportunities for women, the mindset of many women even after they've received higher education is that they would rather become "intellectual mothers" than "go out and make something of [themselves]." In her view, perhaps it is the overabundance of government-provided safety nets for Malaysia's undergraduates that makes young Malaysians somehow less hungry and more risk-averse in terms of seeking work opportunities. She voices her

concern with the fact that government mandates certain performance metrics without thinking about the long-term effects of these measures. For example, the mandate to create entrepreneurship centers in universities springs out of the new KPI placing pressure on universities to churn out 1% entrepreneurs from their student population every year. However, Asma notes that "the people who run the universities do not necessarily know what it takes to start and run companies, so you basically have the blind leading the blind." Her main concern is how large-scale institutional change can take place given the heavily centralized nature of the education system, "What we're talking about is the need to affect four hundred thousand teachers in over ten thousand schools across the nation to embody the entrepreneurial spirit they are trying to teach students."

From those who grew up under the current system, single father and entrepreneur Maverick Foo expressed his deep concern with the education system, "Honestly, I would rather save money to send [my son] to Burning Man to expose him to something creative and eye-opening than put him through the higher education system in this country."

Some older interviewees, such as Dato Mei Phng, seemed nostalgic for the earlier, secular education system that existed pre-Independence which upheld principles of an English-based, international curriculum rather than the present Islamic-based education. Born in the 1930s, Phng managed to attain her high school diploma, then

worked as a typist and secretary for a renowned businessman. She later married into a family that ran a chain of small businesses. Her father-in-law took a liking to her and taught her the intricacies of running a family business. In less than ten years, she turned the family business into a local construction conglomerate, becoming one of the most successful female magnates of her time.

Looking back, Dato Phng mentions one of her key learning moments, "At the end of every year, my father-in-law would sit us down, and have us list everything we spent money on and all our losses... Ultimately, I think the role of education is to provide you with logical thinking... And once you receive the skill of logical thinking, whether or not you need higher education is up to you."

Experimenting with entrepreneurship education programs

In an effort to expose students to the dynamics of entrepreneurship, the Ministry of Education partnered with MIT and Stanford in the summer of 2014 to pilot an entrepreneurship education and exchange program. As a part of this initial trial, the Ministry of Education and MDec invested RM 500 million to reach 35 undergraduates in technology-related majors representing 16 universities across 8 Malaysian states and two federal territories.

The student selection process was fairly opaque. The Ministry of Education initiated the first round by handpicking an original group and funneling the students through MDec which then consulted the facilitators from MIT and Stanford. The process was unclear in terms of how and why these universities and students were originally selected by the Ministry, though external facilitators were aware that there were certain guidelines put into place as 'standard selection criteria'- for example a video pitch to highlight the candidate's communication abilities, the results of a basic technical assessment, and a CV (which we found to be copied from student to student in the same university, and therefore an inaccurate assessment tool). At the end of the program, MDec and the facilitators jointly developed an evaluation to assess the short-term observable outcomes based on qualitative metrics monitored by the facilitators throughout the program. While all of MDec's programs are associated with certain KPIs, the head of the Talent Division noted that the only metrics that really matter is the "employability of graduates" and the "effectiveness of the selection criteria" in ensuring that the project reaches Malaysian students who will benefit most from such a program.

Even if the selection process was not as transparent as we would have hoped, as one of the four facilitators, I witnessed the transformation of students during the span of eight-weeks as we exposed them to brainstorming exercises, pitching ideas, and fielding criticism in the process of idea generation. It is possible that under the current rote-based system of learning, students may have limited opportunities to

practice and gain the soft-skills such as confidence and communication without fear of judgment required for success in an increasingly competitive global workplace, regardless of gender.

In observing the development of students' entrepreneurial capabilities over the course of eight weeks, there were two notable issues. The first was a lack of motivation on the student's part to detail their ideas. The second was the lack of confidence. Female students were generally more likely to do the detail-oriented work and less likely to exhibit confidence in conveying their ideas. Many of the teams initially developed their ideas in very broad brush strokes and themes. While most of the teams were able to hammer out finer details, several teams were very slow to reach that point. We presume that this arises from a lack of practical experience. For example, one of the teams decided to target female fitness by creating a mobile app game. However, the team did not conduct adequate user-based research to understand what sorts of exercises the target user tended to favor in efforts to lose weight, and thus, this team had a limited idea of what features would be appealing to the female users they were targeting. We might be able to generalize, albeit with limited validity, that this aversion toward user-based participatory research may be the product of the Malaysian education system, which does not grant students adequate opportunities to engage in critical dialogue and dynamic problem-solving.

In our initial survey to determine entrepreneurial propensity among the students, we found that only 15% of them thought that there were adequate opportunities for starting a business in Malaysia. 28% of the students said they were ready to risk everything to start a business right now, while the rest stated that they needed to graduate, gain more experience, or have led a successful career before starting a new venture. 80% said that fear prevented them from venturing out to start a business. Surprisingly, the group was split pretty evenly amongst those who thought that being an entrepreneur was a desirable and respectable career choice in Malaysia. By the end of the eight-week program, nearly 80% thought that they had the skills and the confidence required to start a company. Six months after the program ended, of the three prize-winning teams which emerged from the program, only one team remains in pursuit of their original idea and has used the funds toward building the enterprise based on what was originally agreed upon.

While we see that the Malaysian government has provided an overwhelming number of opportunities for entrepreneurship, and made efforts to encourage women to participate in these programs, perhaps the real solution to creating an innovative workforce lies in the ability of the Ministry of Education to motivate and encourage students to question conventions. To me, there is no greater opportunity for Malaysia to exercise entrepreneurial efforts within a system that requires urgent change.

These entrepreneurial women are able to be insubordinate and challenge the status quo because others who came before them had made it safe for them to speak out. They, in turn, relied on a national infrastructure of laws and regulations that promoted gender equality, despite an agonizingly slow process. Nearly every female leader I interviewed cited Sheryl Sandberg's *Lean In*, but to suggest that women can solve the problem by becoming more confident and that society can help expedite the process presumes that this merely an issue about the will power of individual women and of the good will of men. This is not the case in Malaysia. We see here that the problem is in the institutional rules of the game, not the individual. Just because new rules, policies and quotas are created and key performance metrics are changed to include women does not mean that the institutional and organizational mindsets have changed.

I have been challenged by this dialogue between policy-makers, institutional entrepreneurs, Malaysian startup founders and community innovators, and hope that the findings generated through ongoing dialogue between the Ministry of Education & the MIT community will open up new possibilities for Malaysia's pursuit of an innovation-based economy.

Conclusion

Condensing the stories of these female entrepreneurs in an effort to distill some sort of solution for success is like to trying to figure out how to promote social reform based on past movements that have been successful. Most such efforts have failed. At the most general level, we can say that the efforts of these women can be characterized by their ability to plug into social networks involving individuals who have shared a certain kind of adversity and then, worked to broaden those networks by leveraging their own personal connections to decision-making entities. They have managed to mobilize ordinary people to carry out a wide range of innovative activities at the grassroots level. And, they have been able to promote the shift of certain conventional perspectives and behaviors at the micro scale. Nevertheless, their individual stories are, in my view, more important than any generalizations we can make about their successes.

We see that the opportunities provided by the government have not been especially important to any of them. Social theories attributing successful entrepreneurship and risk-taking behavior to profit-seeking success are not central to their stories. I saw women motivated by their personal experiences struggling to reconcile their faith and custom with their desire for agency, and dissatisfaction with the current education system. 9 out of 20 of the women I interviewed attributed their enterprising efforts to faith or religious-based motivations. 10 of the 20 women attributed experiential hardship or inequality as the main motivating factor. Only one woman attributed a

childhood desire to be an entrepreneur as her main motivating factor. Most of the successful entrepreneurs between the ages of 25 and 50 were able to benefit from receiving a foreign education, and afterwards, decided to return to Malaysia in attempt to provide solutions that "could fill the gaps." The older institutional entrepreneurs such as Zaina Anwar and construction magnate Mei Phng were able to benefit from the earlier English-based, pre-Independence education system. At this point, I would like to restate my original research question in terms of what the Malaysian government can do going forward to help support institutional changes on gender equality required to achieve the innovation-driven economy that it envisions.

In this research, we see how female entrepreneurs create and perpetuate a sort of civic nationalism that is contrasted by patriarchal notions of nationalism. MyTeksi sprung out of the civic pride to compete with Indonesia on better public transportation. We see how female entrepreneurs validate and legitimize new forms of work by creating normative standards and pressing the state to review certain laws, such as the case of Sisters in Islam. We also hear from multiple stakeholders about the importance of women leaders providing the bridge between communities and decision-making entities, as in the case of Mangaleswary and the various temple associations and Tamil schools in Penang. These forms of innovation have the potential to serve as a foundation for small-scale institutional reform and generate larger social reform.

The efforts of the Malaysian government to promote female entrepreneurship have not been as effective in part because the opportunities provided are short-term and KPI-driven and not long term solutions. Many of the initiatives are very high level and do not adequately address the root cause of issues at the implementation level. For entrepreneurs who have been successful and active with the grassroots, they have managed to provide the bridge between communities at the ground and professional or policy-level agents who are able to influence larger decisions.

Policy recommendations

The findings of this research, though not comprehensive, imply several new potential avenues for national policy to help women be more effective in the new innovation-driven economy:

To reconcile the implicit gender bias present in Malaysia's average citizens and those in leadership roles with the current goals of achieving a gender-inclusive, innovation economy, I echo the importance of "equity among all students" as detailed in the Education Blueprint 2013. The equity issues span across gender, geographic, and socioeconomic divides, but change is not inconceivable. As we've witnessed in the work of Malaysian entrepreneurs, we see how micro-level reform is possible to propel institutional change.

Considering the potential of implementation challenges and current institutional barriers, I advocate for subtle curriculum changes that implicitly champion gender equality. For instance, teachers and new teaching materials can mandate examples in class that portray women differently from the prevailing stereotype. Implementing a required course on comprehensive sex education or gender equality as a part of the existing curriculum seems inconceivably difficult at this point, so to create small adjustments in the current curriculum might be a better starting point. In reference to the mandatory "ethics and spirituality" courses, I would suggest a potential revision of the curriculum based on gender-inclusive perspectives with supported verses from the Qoran. This may be done in collaboration with some NGOs featured in the documentary that have been successful in their campaign for gender equality in a rigorous re-interpretation of religious rights.

Reflecting upon some of the strategies the women entrepreneurs of Malaysia employed, I realized that creating a public voice to promote or to explain some of the ideas that require rethinking can be extremely effective in terms of popularizing controversial but progressive ideals. In light of that fact, longitudinal studies, such as film documentation of students and the new generation of entrepreneurs, might help to evaluate programs over time and may potentially be more effective in tracking changes or improvements, rather than the standard short-term key performance metrics evaluation method. These longitudinal studies, for example documenting female students from pilot programs or female entrepreneurs from the inception of

their business can give us real-time data to observe over time. One potential output

for this type of study is the creation of a youth-driven, public campaign to highlight

the effectiveness of the Education Blueprint 2013. If it calls for a true

transformation of the current education system, then its implementation would

presumably impact the next generation, and what better way to create awareness

about what has worked and what has not worked than to capture initial thoughts of

the affected population reflecting before, during and after the span of 2013-2025.

To that end, I urge the Ministry of Education, MaGIC, MDec and private media

companies to strongly consider conducting longitudinal interviews with a video

component to study the effectiveness of entrepreneurship and gender inclusion

policies and programs so that they can observe changes as they evolve over time[43].

For example, Michael Apted's documentary series traces the lives of 14 ordinary

citizens from age 7 through to 56 in seven-year intervals in attempt to examine the

realities of the British class system at a time when the culture was experiencing

immense upheaval. As a researcher on the original series, Apted reflects on the

process,

"The idea was to get some 7-year-old children from different backgrounds- rich, poor, rural and urban ... and have them talk about their lives... and see whether that told us anything. And of course it did...in fact, the class system was very active, and that people in certain backgrounds had a real vision of their future, and others really didn't know what day it was."

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[43] Similar to the longitudinal studies documented by Michael Apted in the documentary film series "7 Up!"

This idea to engage in participatory, field-based studies is not original, but its potential to have a longer term role in data-driven policy making might be worth exploring. For one, longitudinal studies may alleviate some of the tension surrounding the selection of performance indicators and other easily fungible statistics, and contribute to a new way of thinking about data-driven policy making.

Acknowledgements

Appendix A: Literature review

Adichie, Chimamanda. (2013). "We Should All Be Feminists." TED Talk, https://www.youtube.com/watch?v=hg3umXU_qWc

Babcock, Linda. 2003. *Women Don't Ask: Negotiation and the Gender Divide*

Bank Negara Report, "Enhancing Capacity & Capability of SMEs." http://www.bnm.gov.my/files/publication/sme/en/2005/chap_5.pdf

Bowles, Hannah Riley. (2012). Claiming authority: How women explain their ascent to top business leadership positions. HKS article in Elsevier Research in Organizational Behavior

Davis, Jason P. & Kathleen M. Eisenhardt. (2011). Rotating Leadership and Collaborative Innovation: Recombination Processes in Symbiotic Relationships. Administrative Science Quarterly

Economic Management & Prospects Report 2012-2013. http://www.treasury.gov.my/pdf/economy/er/1213/chap1.pdf

Entrepreneurial Econsystem Diagnostic Toolkit. Aspen Institute ANDE & UK DFIF joint-publication December 2013. http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/FINAL%20Ecosyst em%20Toolkit%20Draft_print%20version.pdf

Ernst & Young "KL Calling: The Rise of Kuala Lumpur as an investment destination." 2014 EYGM Limited

Ehrenreich, Barbara. 2000. Maid to Order: The Politics of Other Women's Work. http://barbaraehrenreich.com/website/maidtoorder.htm

Felker, G., & Jomo, K. (2007). Technology Policy in Malaysia . In K. Jomo, & J. Sundaram, Malaysian Industrial Policy. NUS Press.

Frenkel, Amnon & Shlomo Maital. Mapping National Innovation Ecosystems: Foundations for Policy Consensus– September 30, 2014.

Fung, Archon. (2002). *Empowered Participation: Reinventing Urban Democracy.* Princeton University Press

Goldin, Claudia. 2006. The Quiet Revolution that Transformed Women's Employment, Education and Family. NBER Working Paper

Gomez, E. T. (2012). State–Business Linkages in Southeast Asia: The Developmental State, Neo-liberalism, and Enterprise Development . In A. Walter, & X. Zhang, East Asian Capitalism: Diversity, Continuity, and Change. Oxford University Press.

Greenwald, B., & Stiglitz, J. (2014). Creating a Learning Society: A New Approach to Growth, Development, and Social Progress. . Cambridge University Press

Hausmann, R., Rodrik, D., & Velasco, A. (2008). Growth diagnostics. In The Washington Consensus Reconsidered: Towards a New Global Governance. Oxford University Press: New York, 324-355

Hirschman, Albert. 1965. *Journeys Toward Progress: Studies of Economic Policy-making in Latin America*. Anchor Books

Hirschman, Albert. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press

Hirschman, Albert. (1958). *The Strategy of Economic Development*. Yale University Press

Hoffstaedter, Gerhard. 2011. *Modern Muslim Identities: Negotiating Religion and Ethnicity in Malaysia*. NIAS Press

Hoffstaedter, Gerhard. (2013). Secular State, religious lives: Islam & the State in Malaysia. Journal of Asian Ethnicity. Vol 14, Issue 4, pages 475-489

Iskandar Malaysia Development Plan
http://www.iskandarmalaysia.com.my/downloads/blueprint-for-iskandar-malaysia

Islamic Microfinance AIM. http://wief.org/wp-content/uploads/2012/04/Datuk-Hajah-Zabidah-Ismail.pdf

Jala, Idris. "Getting women back to work."
http://etp.pemandu.gov.my/Transformation_Unplugged-@-Getting_women_back_to_work.aspx

Khan, M. (2009). Learning, Technology Acquisition and Governance Challenges in Developing Countries. London: School of Oriental and African Studies.

Landscape Masterplan for Cyberjaya, Malaysia. 1997. Federal Department of Town and Country Planning, Kuala Lumpur: Government Printers

Malaysia Economic Monitor Boosting Trade Competitiveness June 2014. World Bank IBRD/IDA publication
http://www.epu.gov.my/documents/10124/bef75aba-f5a4-47d4-b572-969851666293

Malaysia Education Blueprint 2013
http://www.moe.gov.my/userfiles/file/PPP/Preliminary-Blueprint-Eng.pdf

Mahmood, Saba. (2005). *Politics of Piety: The Islamic Revival & the Feminist Subject*. Princeton University Press

McClelland, David (1961). *The Achieving Society*. D. Van Nostrand Company Inc.

McCourt, W. (2012). Can Top-Down and Bottom-Up be Reconciled? Electoral Competition and Service Delivery in Malaysia. World Development , 40 (11), 2329- 2341.

Middlemiss, Lucie & Bradley D. Parrish. (2009). Building capacity for low-carbon communities: The role of grassroots initiatives. Energy Policy Special Section: Carbon Reduction at Community Scale. Volume 38, Issue 12, December 2010, Pages 7559–7566

Moore, Rob & Michael Young. 2001. Knowledge and the Curriculum in the Sociology of Education: Towards a reconceptualization. British Journal of Sociology of Education, Vol. 22 Issue 4

Pew Research Center April 2013. The World's Muslims: Religion, Politics & Society. http://www.pewforum.org/2013/04/30/the-worlds-muslims-religion-politics-society-overview/

Ramasamy, B. (2004). Malaysia's leap into the future: an evaluation of the multimedia super corridor. Elsevier Science Ltd. Technovation 24 (2003) 871-883.

Ranga, Marina & Henry Etzkowitz. (2010). Athena in the World of Techne: The Gender Dimension of Technology, Innovation and Entrepreneurship. Journal of Technology Management & Innovation, Volume 5, Issue 1

Rasul, I., & Rogger, D. (2013). Management of Bureaucrats and Public Service Delivery: Evidence from the Nigerian Civil Service. The IGC. UCL.

Roy, Ananya. (2014). Patriarchy: Power & Gender in the 21st Century. TED Talk https://www.youtube.com/watch?v=6oOevLDtPJo

Sabel, C., & Saxenian, A. (2008). Venture Capital in the "Periphery": The New Argonauts, Global Search, and Local Institution Building. Economic Geography , 84 (4), 379-394

Schumacher, E.F. (1973) *Small Is Beautiful: A Study of Economics As If People Mattered.* Blonde & Briggs

Schumpeter, J.A., *1934 (2008), The Theory of Economic Development: An Inquiry into Profits, Capital, Credit, Interest and the Business Cycle,* translated from the German by Redvers Opie, New Brunswick (U.S.A) and London (U.K.): Transaction Publishers

Seeley, John R. et al. 1956. *Crestwood Heights: A Study of the Culture of Suburban Life. New York: Basic Books, Inc*

Shadow Report Group. (2005). NGO Shadow Report on the Initial and Second Periodic Report of the Government of Malaysia Reviewing the Government's Implementation of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) Coordinated by the National Council for Women's Organisations (NCWO) with the Women's Aid Organisation (WAO)

Shahina Amina, Imam Alam. *Women's employment decisions in Malaysia: Does religion matter?* Journal of Socio-Economics Volume 37, Issue 6, December 2008, Pages 2368–2379

United Nations Committee on the Elimination of Discrimination against Women (CEDAW) (2004) Consideration of Reports Submitted by States Parties Under Article 18 of the Convention on the Elimination of All Forms of Discrimination against Women: Malaysia, Combined Initial and Second Periodic Reports of States Parties, CEDAW/C/MYS/1-2, CEDAW, New York
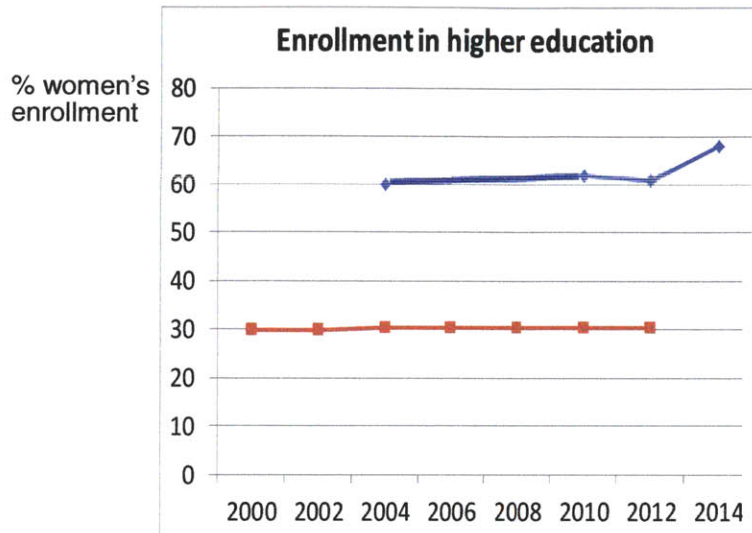
Slaughter, Anne-Marie. (2012). "Why Women Still Can't Have It All." The Atlantic. http://www.princeton.edu/~slaughtr/articles.html

Valerio, Alexandria; Parton, Brent; Robb, Alicia. 2013.*Framing the global landscape of entrepreneurship education and training programs.* Washington DC : World Bank. http://documents.worldbank.org/curated/en/2013/06/18347783/framing-global-landscape-entrepreneurship-education-training-programs

Women's participation in labor force 2012. Data compiled by ILO, Bloomberg, World Bank. https://datamarket.com/data/set/28mx/#!ds=28mx!2rs5=7.w.2c.4.50.5l.3z.4s.3s.10&display=line

Zarizana Abdul Aziz. July 2008. Mechanisms to Promote Gender Equality in Malaysia: The Need for Legislation. http://wccpenang.org/wp-content/uploads/2013/06/The-Need-for-Malaysian-Gender-Equality-Legislation-by-Zarizana-Abdul-Aziz.pdf

Appendix B: Entrepreneurship Ecosystem Map

Central node: **Entrepreneurship Ecosystem**

Main branches:
- Accelerators, incubators, and other entrepreneur support
- Hackathons
- Leadership
- Events
- Community
- Workshops
- Student Organisations
- University/faculty organisations
- Government agencies
- Capacity development & training
- Talent
- Media & blogs
- Associations
- Coworking spaces
- Other organisations
- Competitions
- Investors and fund providers
- Coaching & mentoring

Appendix C: US Malaysia comparison statistics

Enrollment in higher education

% women's enrollment

Women's Employment

% women's employment

Private & public sector leadership

% women's employment

Year

In charting female participation in higher education, employment and leadership positions, the red line indicates US progress and the blue line indicates Malaysia's progress. These statistics are based off of two sources:
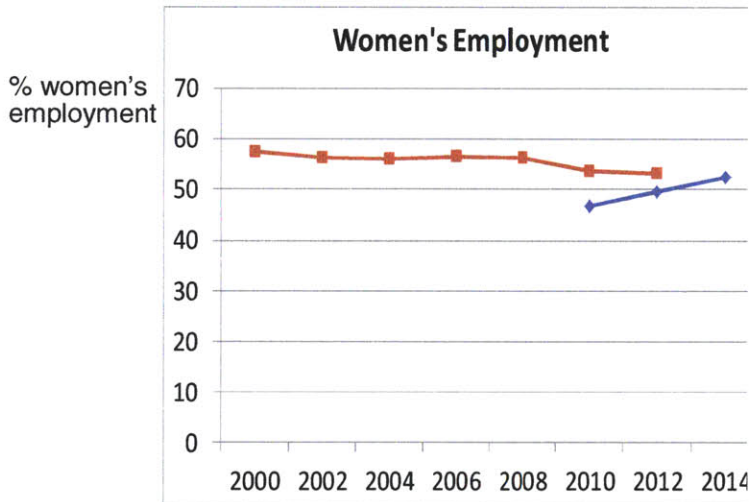
US Bureau of Labor Statistical data from 2000-2013, and the employment data from the Malaysia Ministry of Women, Family and Community Development (LPPKN). Also note that in Malaysia, new policies to effect similar changes in the private sector leadership (30% quota for females in leadership by 2016) have been deployed in 2011, but are not yet illustrated