Innovation in Finance as Perceived by Finance Decision-makers in Hong Kong Organisations

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Abstract

Financial Decision-Makers, or FDMs, are important leaders in organisations that help fulfil organisation objectives and are often involved in driving or supporting innovation. However, the finance and accounting field is not viewed as particularly innovative and there very little research to provide substantial insights especially for East Asian economies. This research focused on specific case of FDMs in Hong Kong. A questionnaire researching factors that contribute to a lack of innovativeness was developed and distributed to FDMs in Hong Kong. A total of 123 valid responses were collected and analysed using descriptive statistics and correlations. The results indicate that FDMs in Hong Kong do in fact believe they display innovativeness as does the finance field. In addition, a lack of experience in the finance field, experience as an FDM, industry type and organisational size as proxied by revenue are factors that limit the innovativeness of Hong Kong FDMs. Limitations of the study include gender bias and confirmation bias from participants themselves in terms of innovativeness. Future research could consider a wider sample of participants from different educational backgrounds and geographic regions, or request responses on other factors that impact on innovativeness such as organisation structures, funding, government support or team size.

Keywords: Innovation, Leadership, Finance decision maker, Hong Kong

Introduction

Innovation may be a misused word in business but as a concept it can be complex (Carlsson-Wall et al., 2018). The field of accounting and finance is ever-evolving (Kamal, 2015) however in the realm of accounting and finance many innovation barriers also exist, for example, Hueske et al., (2015) found no less than 39 barriers in a German biotechnology company including external stakeholders, employees' attitudes and abilities, and management commitment.

As business models evolve in innovative ways, in an era of digitisation further research is required in how digitisation changes existing business models (Carlsson-Wall et al., 2018). These changes warrant a need for further studies in the area of innovation and in the context of business, accounting and finance. Actually, the study of innovation itself in the field of accounting and finance is also limited (Waymire, 2012).

The city-state of Hong Kong in 2018 was considered as the world's third most important global financial centre after London and New York (Yeandle, 2018). As with many large cities, Hong Kong similarly needs to ensure that it remains innovative (Ojasalo & Kauppinen, 2016). The focus on innovation is important. As nothing stands still, in dynamic and competitive global markets, innovation is a crucial capability for organisations both large and small (Gregersen, 2013). Companies operating in financial centres need to embrace innovation to ensure they remain relevant, maintaining a competitive edge and avoiding failure (Pisano, 2015). Management and senior staff in organisations are often Decision-Makers who are in the position to embrace such innovation. This research focuses on the type of decision-maker who has a position related to Finance or Accounting; a Finance Decision-Maker (FDM).

The FDM is an important individual in the accounting, finance or analysis area of the business, who is able to make organisation-influencing decisions, or is highly influential in

organisation decisions. In accounting and finance, the FDM is often a CFO, Head of Finance, Finance Director, Finance Manager, Vice-President of Finance, President of Finance, Finance Leader or otherwise, and is one of many decision-makers that has a major influence on what constitutes and what is adopted as innovation, within an organisation.

The FDM is also a gatekeeper of prudent financial management. Nevertheless in being the gatekeeper, other areas of the business may view the mission of FDMs and their teams as running counter to the efforts of entrepreneurship and innovation (Davila et al., 2009) where often large sums of money need to be spent and risks taken in order to drive meaningful change in an organisation. This reputation needs to, and is now possibly changing in recent years with publications and practice also reflecting the change that finance needs to "be something other than the person who says no." (Tuff, 2015). FDMs come from different backgrounds and have different experiences and may have their own views about innovation.

The specific problem this research addressed is the lack of innovativeness of some FDMs in Hong Kong as the perception of finance is that they are the persons that say no (to change) (Tuff, 2015), the study of innovation itself in the field of accounting and finance being limited (Waymire, 2012) and the CFO is changing his view on the importance of innovation (Erden, 2017). The purpose of this quantitative research study was to identify the factors that contribute to the lack of innovativeness of FDMs in Hong Kong.

By understanding what factors may result in FDMs not innovating enough in Hong Kong I hope to enable positive change in organisations who want to get buy-in from finance to help embrace and drive innovation, whilst at the same time showing the wider corporation that FDMs are recognising the need to innovate. FDMs are no longer dinosaurs in the business world!

In alignment with the purpose of the study and its theoretical framework, the following research question was set:

What factors contribute to the lack of innovativeness of FDMs in Hong Kong?

Literature Review

It is important to understand how the literature juxtaposes innovation with accounting and finance in order to determine what contributes to the lack of innovativeness of those in charge of leading accounting and finance in organisations, that is, the FDMs. Innovation itself is not a new topic. Since the early days in the 1930's innovation was given a sense of importance. An early look at innovation is when Schumpeter (1934) first defines the concept of innovation talking of it as "creative destruction" to its importance in creating economic change. Schumpeter (1934) also suggests innovation is a lynchpin for economic growth.

Over time, researchers were able to observe innovation and understand how it manifests thus it is also notable that despite what some may think about a virtuoso magically creating innovation, successful innovations are usually conscious and purposeful searches for innovation opportunities and comprises work rather than genius (Drucker, 2002). It is important in contemporary business settings where significant competition and extensive technological change exists; as by maintaining a high level of innovation, organisations can gain a competitive advantage (Aghion et al., 2005). Organisational culture and the management of innovation are inextricably linked (Ax & Greve, 2017) and FDMs drive a subset of the culture of organisations.

Considering the lack of research within finance and accounting innovation, significant drivers are supporting further research. Accounting, for example, could benefit from greater effort to support the study of diversity in accounting research (Waymire, 2012). Also accounting research is considered conformist and does not sufficiently challenge existing

practice (Palea, 2017) despite the fact that accounting simplified the interactive world and made it more manageable (Tomkins, 2001). Nevertheless, accounting as a static player is changing. Successful innovation is a true challenge and especially when modern day companies are intertwined in close inter-organisational relationships and networks with customers and suppliers. Research has indicated that accounting can play important roles in such innovation processes (Carlsson-Wall et al., 2018).

Looking at the main objective of accounting, we see that it acts as a support to managers (a type of decision-maker and including FDMs) by providing information that will help them make decisions to fulfil company objectives (Lind, 2017). Nonetheless, the link between innovation and accounting has been established; accounting is also a key component when providing support for the innovation processes. Decision-makers within the companies concerned use accounting to guide their choices for the courses of action in the innovation process (Lind, 2017).

Accounting actors have also evolved. A CFO, for example, no longer just monitors finance in a role of supporting the financial growth of an organisation, but also creates the innovation that helps an organisation grow. Such actors also establish strategic goals, and act as a partner to the CEO (Kranc, 2014). Managing traditional finance and accounting alongside innovation becomes a regular part of the FDMs role. In addition, company structures are changing and innovating, such as the move from a more vertical structure to a horizontal one with supporting processes and information (Chenhall & Moers, 2015).

Innovation

Innovation is a broad topic and when considering research into the relationship between innovation and FDMs there is an increasing need and recognition of the importance that finance plays in innovation in companies. In the medical industry for instance, FDMs act as a bridge to understanding the customer, or are in fact considered a customer for the goods

or services of their organization (Egeland et al., 2017). On another case, it has been demonstrated that CFO characteristics influence accounting practices and adoption of ERP systems (Hiebl et al., 2017), as a type of innovative practice. Another reason to look at FDMs understanding of innovation is that the speed and need for innovation is accelerating (Frigo & Snellgrove, 2016). In terms of innovative ideas, adoption of such ideas is motivated by economic and social gains or losses (Ax & Greve, 2017) raising the importance of understand what drives FDM motivations to use or adopt innovations. Even in businesses considered to be traditional, FDMs need to be able to understand innovation as the generation of innovation doesn't solely depend on individual personalities but involves the cooperation of several different actors (Śledzik, 2013).

The literature discusses various factors that enhance innovation such as Management Control Systems. FDMs use Management Control Systems, which comprise of 3 items: social networking, organic innovative cultures, and formal controls (Chenhall et al., 2011) and consider how innovation is enhanced by the application of these three aspects. It may be that these factors, or lack of them, contribute to the lack of innovativeness of FDMs in Hong Kong. It has also been shown that innovation is associated with organic innovative culture and, marginally, with formal controls (Chenhall et al., 2011). Furthermore, the perceived gains of an innovation and the intensity of the competition could change over time (Ax & Greve, 2017) which also influences the FDMs' propensity to innovate.

Accounting

Accounting research continually changes over time (Hopwood, 2007). FDMs are not traditionally associated with innovation as FDMs are often in charge of accounting, which may not be considered as particularly innovative, as noted above (Waymire, 2012). When we speak of accounting it is often traditionally focused on established and stable companies (Davila et al., 2009) which lends itself an air of constancy. However, accounting itself is a

key component in innovation processes yet accounting and its role within innovation processes has been neglected (Lind, 2017). This is on top of the prevalent notion that there have been criticisms of a lack of innovation in accounting research in itself (Gallery & Gallery, 2011) and further, that accounting research has become insufficiently innovative and increasingly detached from practice (Hopwood, 2007).

As technology expands typical accounting processes become more automated, and it is expected that accounting will shift from computation to a broader role of consulting (Gallery & Gallery, 2011) and consulting could be perceived to be more dynamic and less traditional. The role of accounting in this shift is important and has been shown to benefit the world, not only in recording and describing it but also as an engine for innovation (Revellino & Mouritsen, 2015). An outcome of this changing role can then in turn change accounting practices and the propensity of FDMs to innovate.

The use of accounting to influence innovation processes is looked at in previous studies such as Carlsson-Wall & Kraus (2015), who concluded that there were 2 sub-processes in product innovation and "accounting practices have an important role in helping innovators gather a trustworthy chain of arguments for mobilizing internal and external support and resources" but at the same time the authors saw a less prominent role of accounting practices in the other sub-process, which was the knowledge exploration process. Studies also look at the business changes impacting accounting rather than the changes and discoveries in business as a result of accounting (Revellino & Mouritsen, 2015); "Accounting helps to organise the world but it does not remain stable, just like the innovation that it contributes to developing".

Accounting also shapes the strategising process and becomes an important means that allows managers (FDMs) to have a framework of rules, and a general understanding of

financial numbers, thereby moving forward in the process despite high degrees of complexity and uncertainty (Jørgensen & Messner, 2010). From this we can start to see that there may be factors indicating passive use of accounting and possibly why innovativeness is lacking in FDMs as it may have to do with the accounting function. In research it has been observed that accounting research has not met the challenges of rapidly changing business environments (Hopwood, 2007); moreover accounting, both financial and managerial, also has to grapple with a more complex commercial and institutional world. Unfortunately, accounting is largely viewed as a neutral, mechanical and objective technology whose main function is to reduce information asymmetry and provide transparency for capital markets to function efficiently (Palea, 2017).

As Lind (2017) has pointed out, accounting simplifies the interactive world and makes it more manageable; "Accounting with its incomplete model of the operations can sometimes drive innovation to meet short-term targets at the cost of long-term flexibility. It occasionally even guides the actors in a direction that puts a stop to a prosperous innovation. Thus, accounting can be both an enabler, and a hindrance to innovation processes." This view advocates that accounting can enable and hinder innovation. Accounting practices can be re-designed to perform a proactive role in prompting managerial innovation; yet at the same time, accounting does not always deliver the answers, however is important in pushing a community to ask questions (Busco & Quattrone, 2018).

Lind (2017) further acknowledges that "more studies of the role of accounting in innovation processes might contribute to the knowledge of the industrial network approach. It is difficult to assess whether the use of accounting improves or harms innovation and thus, more in-depth case studies on the interrelationships between the use of accounting, deals and innovation processes are welcome." All-in-all there is undoubtedly a number of research papers that suggest more research in needed into innovation in the accounting discipline.

Hong Kong

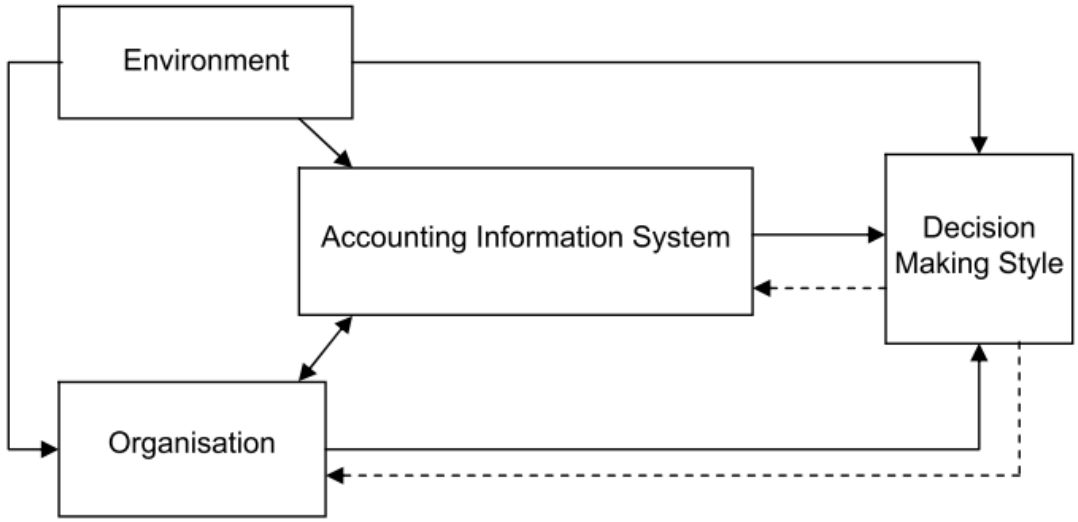
Hong Kong is a Global Financial Centre (Yeandle, 2018) and so it is a place where I wish to explore at finance, accounting and innovation; in fact, on the Global Innovation Index 2018, it ranks at number 14 and is one of two Asian city-states ranked in the top 20, the other being Singapore (Cornell University et al., 2018). The literature suggests that much historical accounting research seems to focus on Western Countries (Carmona, 2018) and that there is great value in researching outside these countries. With respect to Greater China, Huang (2009) has shown that Chinese SMEs are vital to innovation, among other factors such as the national economy and employment opportunities. The author also points out that a common problem of such SMEs was lack of efficient managerial decision-making to which FDMs could address with appropriate innovation initiatives.

Theoretical Framework

The theoretical framework of this study is based on contingency theory (Gordon & Miller, 1976), which proposes that organisational characteristics and contingencies impact upon organisational performance (Figure 1). Zainun & Mat (2014), used contingency theory for the design of accounting information systems that depend on environmental, organisational and managerial decision-style factors.

Figure 1

Gordon and Miller's Framework

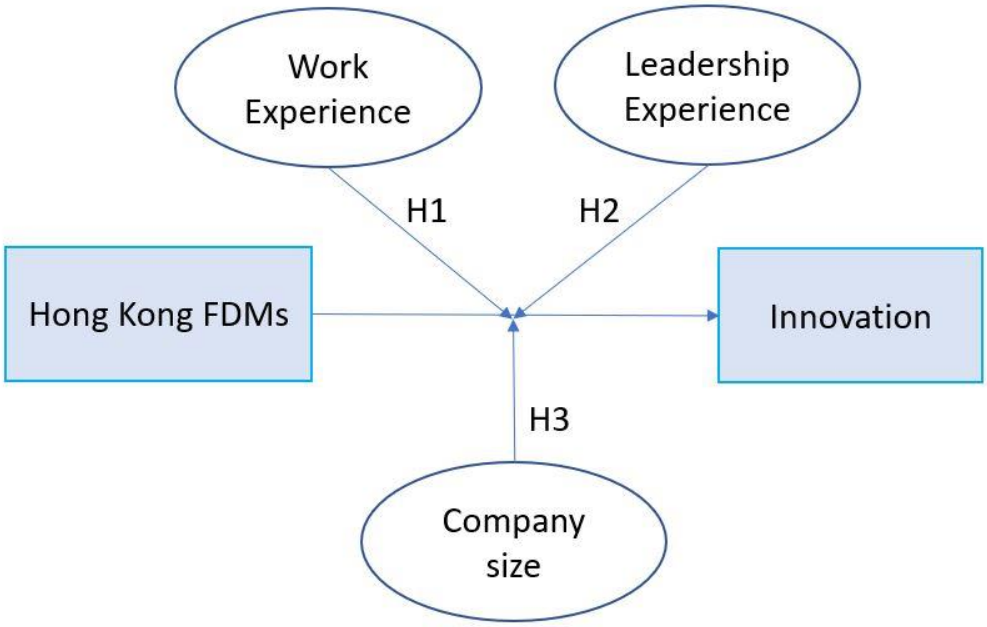


Zainun & Mat (2014) supplemented and extended Gordon and Miller's Framework to examine, from an institutional perspective, whether firm performance was contingent on the alignment of management accounting change with the organisational strategy and structure, in technological development and the competitive environment. In doing so, they found that the environment of the firm, of which the most evident factor was market competition, drove pressure for management accounting and organisational change but other factors were also important such as technology leading to a change in cost structure.

Based upon these theoretical frameworks this study posits that several factors influence the FDMs propensity to change and innovate, such as their work experience, leadership experience, size of the organisation and industry in which their organisation operates. Thus, the theoretical framework of the study as shown in Figure 2 below, exhibits the relationship between FDMs in Hong Kong and innovation under the influence of the identified factors. Note that as a proxy for the size of the organisation, the study will use the gross revenue as is often used in business (An et al., 2011).

Figure 2

Factors influencing FDMs ability to be innovative



Methods

This study researched what factors influenced a Hong Kong FDM's innovativeness. The paper looked at FDM innovation through the lens of influences and characteristics of FDMs that influenced their ability to innovate. A quantitative research methodology was adopted and was preferred to qualitative or mixed-method studies as it provided for a more structured approach (Jackson, 2012) and access to measurable quantities. In addition, as the variables in the study were known and could be measured, using a quantitative approach was beneficial to present the statistical analysis as data (Michie et al., 2008). The research also tested various hypotheses between various relationships that existed between FDMs and their innovativeness, therefore a quantitative study was best suited (Meltzoff & Cooper, 2017) as it was possible to estimate parameters and measure the variables (Harkiolakis, 2017). The research design of the study was correlational, non-experimental and cross-sectional.

Considering increased innovativeness currently and in future as a marker for success, and based on the literature review and theoretical framework of this research, the following hypotheses were noted:

$H1_0$: There is a statistically significant negative correlation between the years of experience and innovativeness of Hong Kong FDMs

$H1_a$: There is no statistically significant negative correlation between the years of experience and innovativeness of Hong Kong FDMs

$H2_0$: There is a statistically significant negative correlation between the years as FDM and innovativeness of Hong Kong FDMs

$H2_a$: There is no statistically significant negative correlation between the years as FDM and innovativeness of Hong Kong FDMs

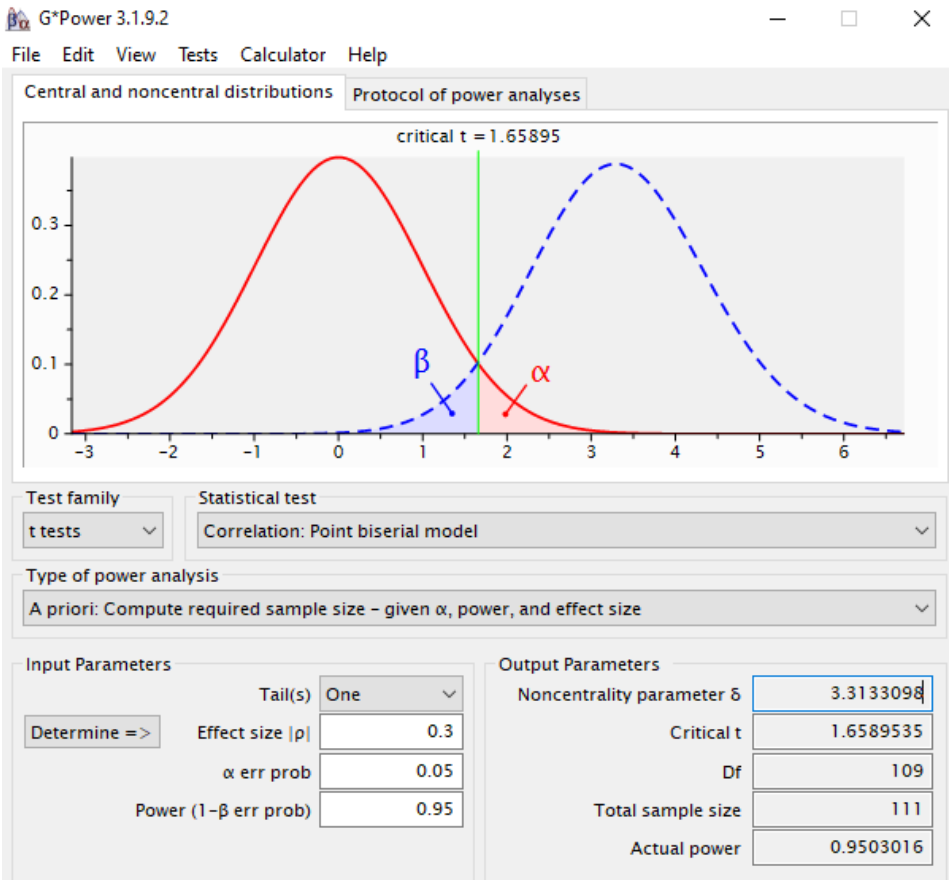
$H3_0$: There is a statistically significant negative correlation between the global organisation revenues of the FDM's organisation and innovativeness of Hong Kong FDMs

$H3_a$: There is no statistically significant negative correlation between the global revenues of the FDM's organisation and innovativeness of Hong Kong FDMs

The population of the study comprised FDMs i.e. leaders and managers in Finance and Accounting based in Hong Kong organizations, numbering at least 111, being the minimum sample size. These FDMs worked in local and multinational companies. G*Power (Faul et al., 2009) was used to calculate the minimum sample size. Considering the t-test family of test and correlation with a medium effect size of 0.3, alpha error probability of 0.05 and power of 0.95 yielded a minimum sample size of 111 (Figure 3). The sampling method was purposive as it screened for FDMs with the appropriate demographics.

Figure 3

*G*Power Computation*



A questionnaire was developed based on the research questions and hypotheses of this study and rooted in literature for data collection. The questionnaire was split into demographic questions and subject matter questions, whereby the demographic questions asked about the participants and their organisation and the subject matter questions delved into the perceptions of the participants regarding the factors that influence their innovativeness. The operational characteristics of the variables are listed in Table 1.

Table 1

Summary of variables

Variable	**Scale**	**Notes**
Years of Work Experience	Cardinal from 1 year(s) up	More likely to be at least 5 years and up given the population comprised Finance Leaders
Years as FDM	Cardinal from 0 years up	Similar to years of experience but if 0 years as FDM they were not qualified for the survey and were removed
Organisation revenues (Global)	Cardinal rounded to nearest million United States Dollars (USD) in intervals of multiples of 10 starting at USD0-100,000	A large variety expected given various organisation types and sizes, ranges were given as revenues may have been confidential for private companies
Industry of organisation	Choice of 11 options	Respondent selected the closest fit of industry of the 11 nominal options.
Innovativeness (2 variables)	5-point Likert scale	2 questions; current innovations and future expected innovations, each used an ordinal 5-point Likert scale

The initial draft of the questionnaire was reviewed for validity (content, structure, and form) by Dr. Paul Thurman, Professor of Management and Analytics, Columbia University and Dr. Nicholas Harkiolakis, Professor of Executive DBA, Ecole des Ponts Business School as quantitative research methodology experts. Based on their input, the questionnaire was updated to ensure content validity. An initial pilot study of 15 individuals from the population of the study was conducted to further ensure the functionality and validity of the questionnaire. The results of the pilot study confirmed the appropriateness of the questions for the purpose of the research. Finally, a web-based version of the questionnaire was developed and posted online using Google Forms. The link to its web form was communicated via email and social media tools (primarily LinkedIn) to FDMs in Hong Kong. Several professional groups were also identified and considered from the researcher's professional network, including but not limited to, Chartered Accountants, Certified Practising Accountants and members of Chambers of Commerce.

The data from the Google Forms was collected as an Excel file and imported to IBM SPSS Statistics version 25 for analysis. Normality tests were performed using the Shapiro-Wilk test as well as by visual inspection of the P-P and Q-Q plots. For descriptive statistics, mean and standard deviations of the scale variables were then calculated, while for the nominal and ordinal variables frequencies were considered. For the inferential part of the analysis, bivariate correlations were conducted to identify potential relationships between scale variables, as well as ANOVA for potential influences of the demographics. Chi-Square tests were also considered for the nominal variables to identify potential influences.

Results

The data collection process lasted for one week and resulted in 126 completed questionnaires. Three of the questionnaires had incomplete or erroneous entries and were removed leaving 123 questionnaires as the sample for this research. A 5-point Likert scale was used to measure attitude, and it was assumed that Likert-type categories constituted interval-level measurements (mapping Strongly Disagree to 1, Disagree to 2, Neither Agree nor Disagree to 3, Agree to 4, and Strongly Agree to 5). The summed scale score was of the interval type given the sum may be insensitive to the breach of interval assumption as item level (Knapp, 1990; Jamieson, 2004). Thus ordinal variables were assumed to be scale variables for the purpose of statistical analysis as these are still robust for the this type of analysis (Norman, 2010).

The Kolmogorov-Smirnov and Shapiro-Wilk tests were performed initially with the scale variables to determine if the data followed the normal distribution. The results suggested that none of the variables could be treated as normally distributed as the significance values were below $p = 0.05$. Q-Q plots were used to visually confirm the results. Further transformations of the variables using the Log10 and SQRT transforms did not alleviate the issue, so all scale variables are treated as non-parametric from then on.

The study used descriptive statistics to profile the population (Table 2). It was noted that of the 123 participants 93 (76%) were male and 30 (24%) were female. Although this difference suggest a strong bias with respect to gender it is reflective of the actual population age demographics as the number of males in senior roles in major parts of the finance industry, such as the financial services sector in Hong Kong, is higher that their corresponding females (Nott et al., 2018).

The ages of participants (Q2 – Table 2) were grouped into 3 categories for analysis purposes: ‘under 40’, ‘40-50’ and ‘50 years and over’. Table 2 shows that there were 51 (41%) participants ‘under 40’, representing the mode. The median was represented by the ‘40-50’ category (with the mean age at 42) indicating a mature population with presumably enough experience to provide valid and reliable information. This finding might also be influenced by the sampling process that considered various membership organisations in Hong Kong in which the majority of participants are middle-aged members. Also, a certain amount of years is to be expected for someone to reach FDM level.

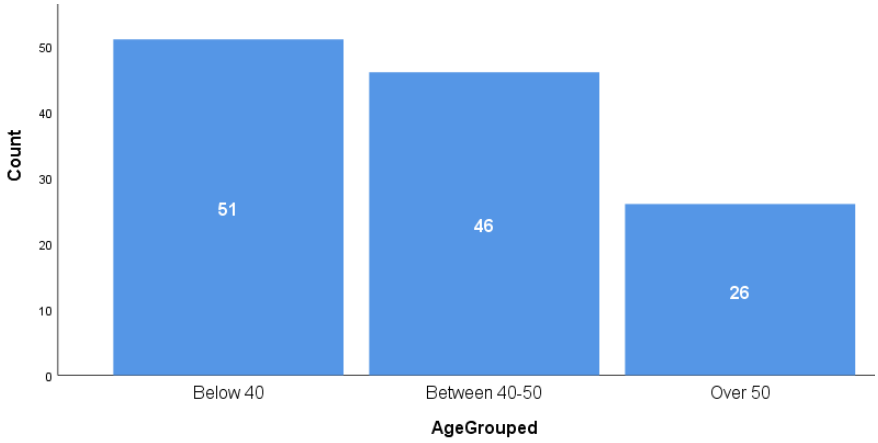
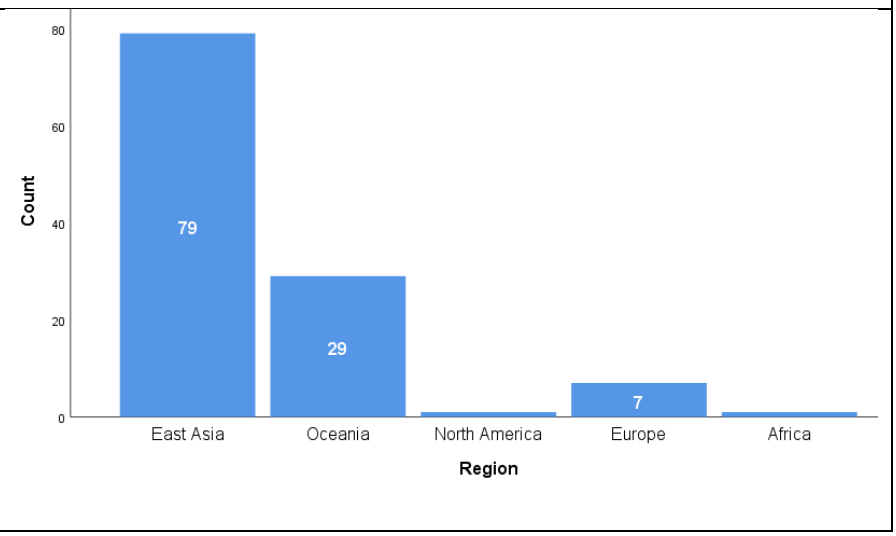
In terms of years of experience (Q4 – Table 2) and years as FDM (Q5 – Table 2), their values were grouped into the four categories of ‘Below 10’, ‘Between 10-19’, ‘Between 20-29’ and ‘Over 30’. The median and mode for the years of experience were both ‘Between 10-19’. These values seem to be representative of the number of years that is expected for someone to progress to an FDM level. For years as FDM the median and mode were both ‘Below 10’ which is in line with the age and experience variables where a period of time working before reaching the level of FDM is the most probable scenario.

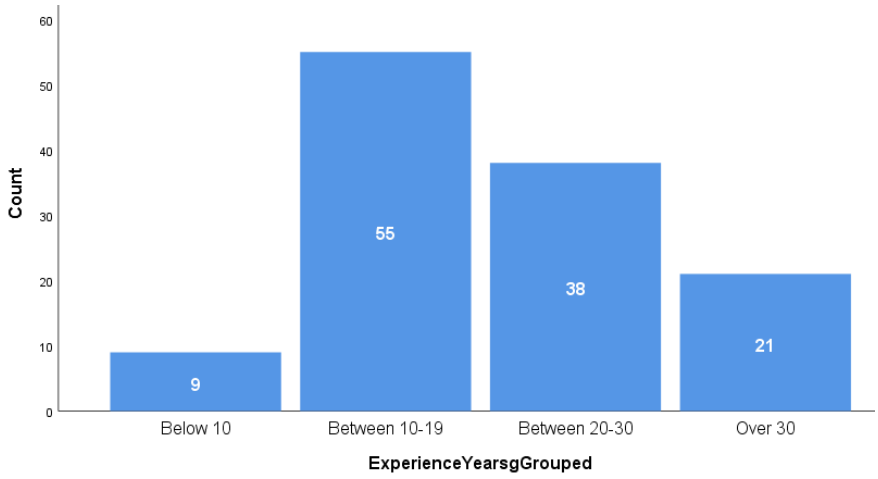
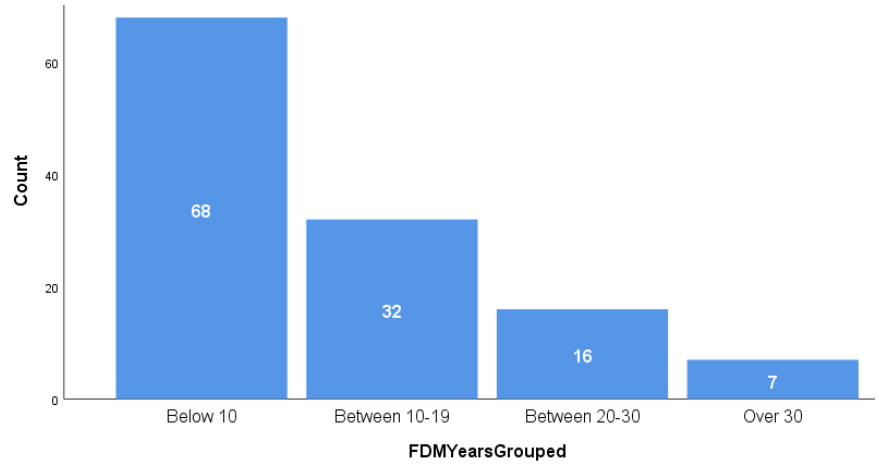
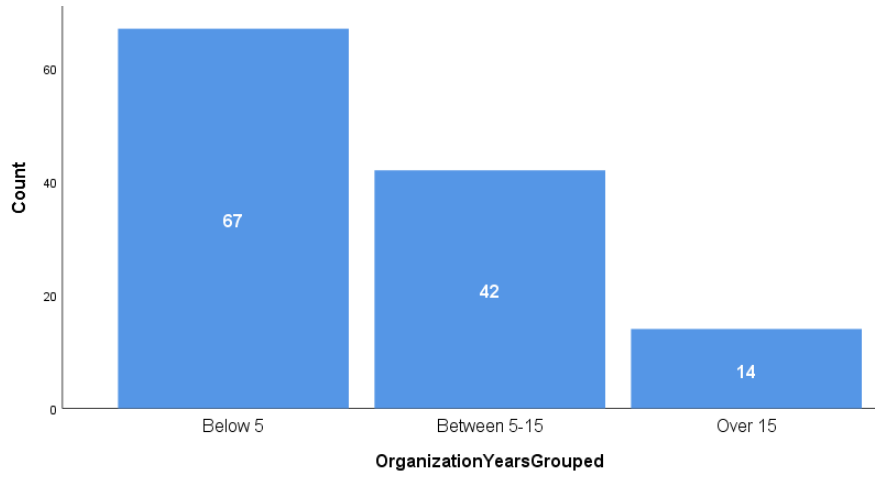
For the years employed in the current organisation (Q6 – Table 2), the participants’ responses were grouped into three categories; ‘Below 5’, ‘Between 5-15’ and ‘Over 15’. The study found the median and mode to be ‘Below 5’ reflecting the frequent nature of participants changing roles in the highly competitive Hong Kong environment. The total consolidated revenue of the participant organisation (Q7 – Table 2) had eight categories ranging from under USD100,000 to over USD100 billion (see Appendix A). Given that Hong Kong is a financial centre with many large or regional organization headquarters, it was not surprising to see the median and mode being ‘USD100,000,001 to USD1 billion’. With respect to the participants industry (Q8 – Table 2) the mode of 44 responses indicated

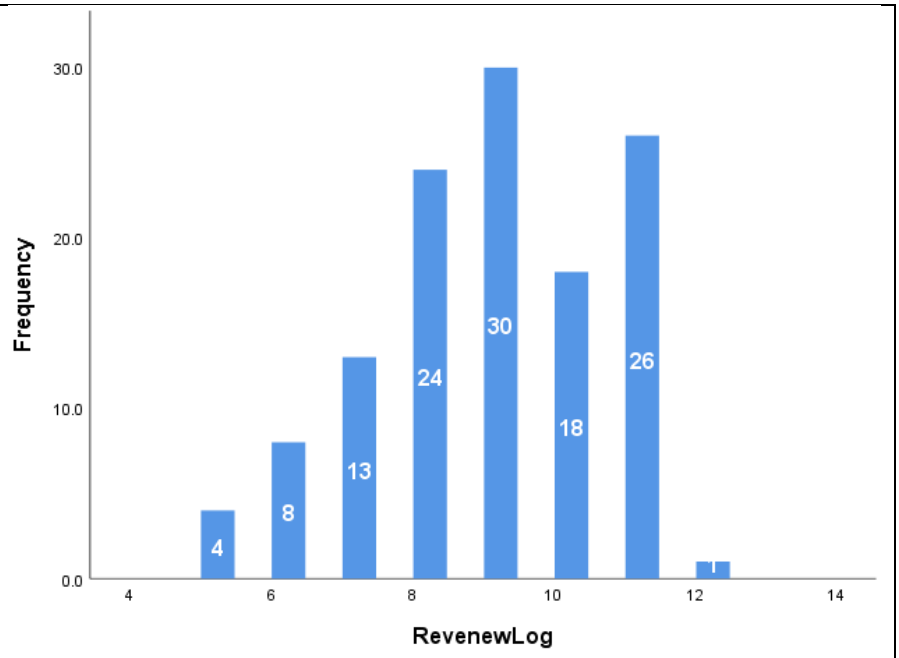
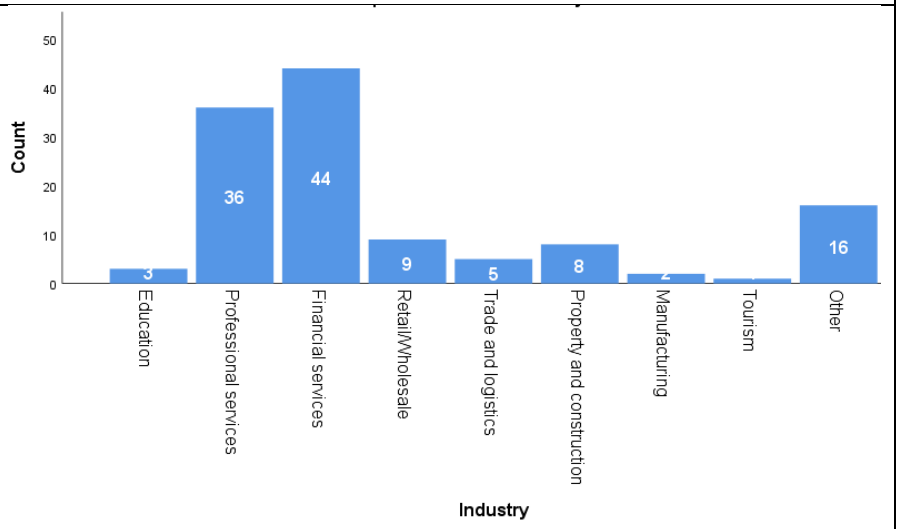
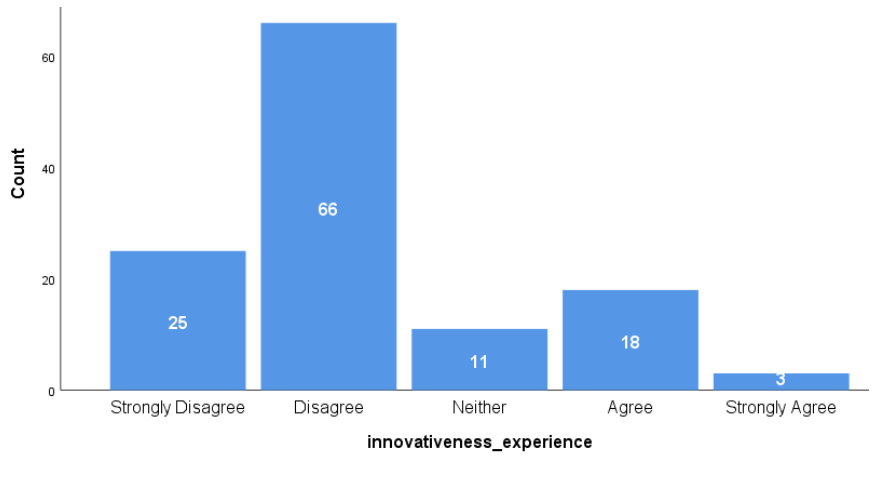
‘Financial services’ followed closely by ‘Professional services’. This result seems to fit the profile of Hong Kong as one of the major financial centres of the world.

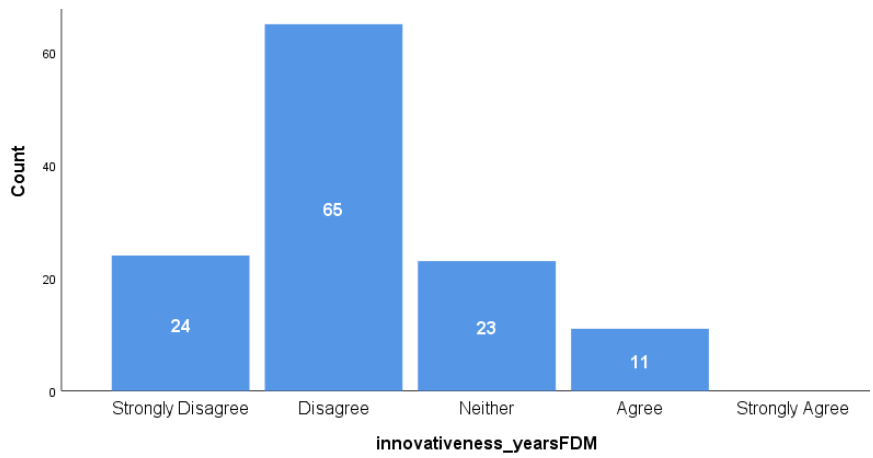
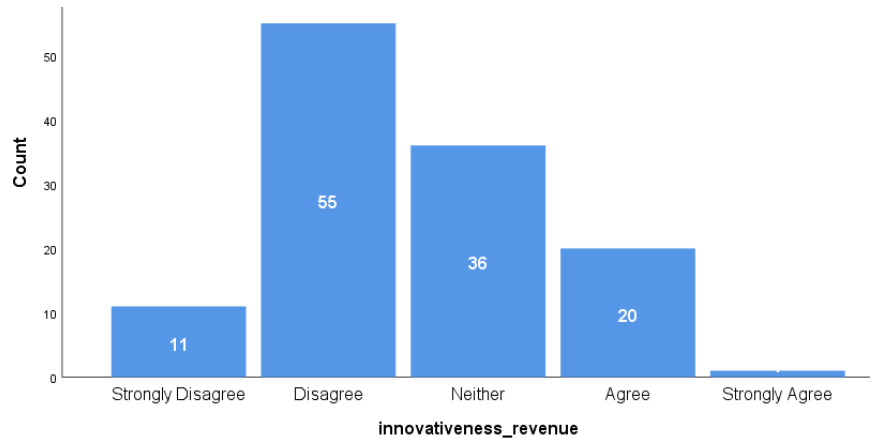
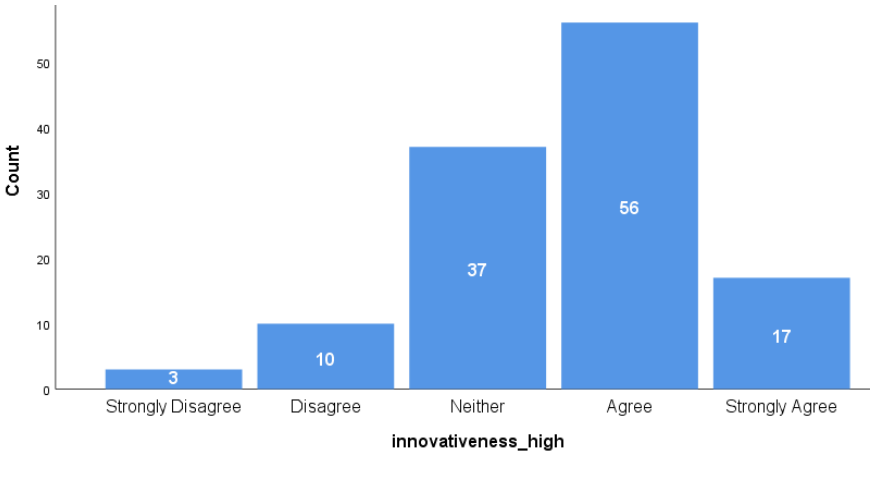
Table 2

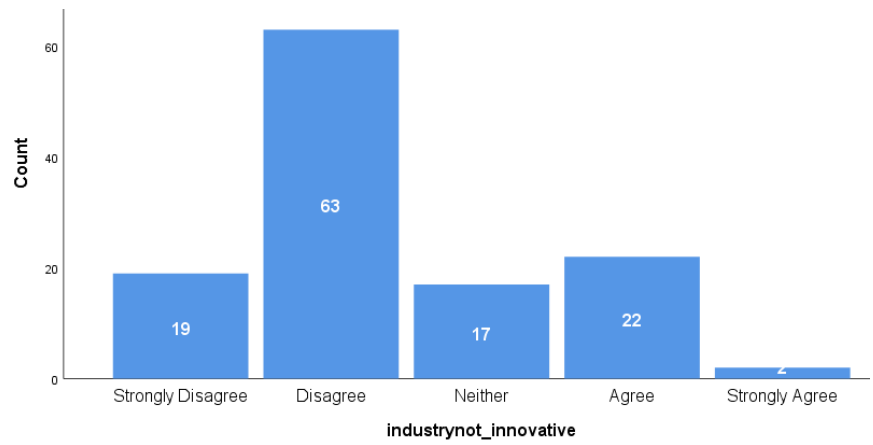
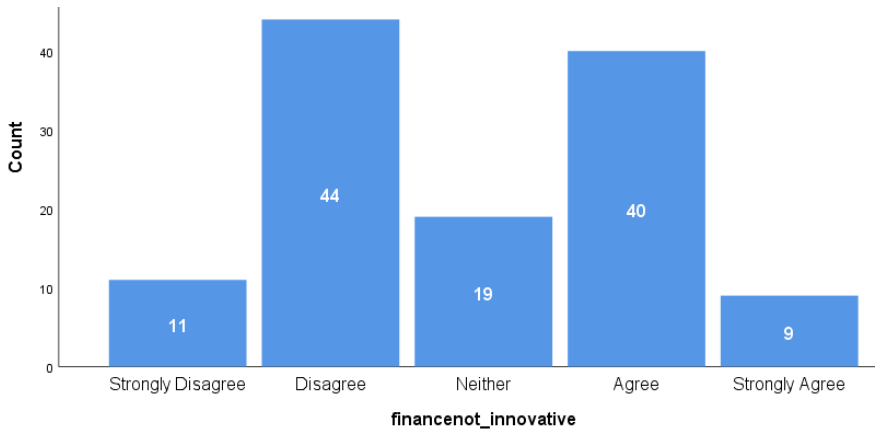
Descriptive statistics

Variable	Median	Mode	Chart
2) Age Grouped	40-50 years	Under 40 years	
3) Geographic background	N/A	East Asia	

4) Experience Years Grouped	Between 10-19	Between 10-19	
5) FDM Years Grouped	Below 10	Below 10	
6) Years in Organisation Grouped	Below 5	Below 5	

7) Revenue of organisation (log scale)	USD100,000,001m to USD1bn	USD100,000,001m to USD1bn	
8) Industry	N/A	Financial Services	
9) Innovativeness years of experience	Disagree	Disagree	

10) Innovativeness years as FDM	Disagree	Disagree	
11) Innovativeness org revenue growth	Disagree	Disagree	
12) Participant innovativeness relative to others	Agree	Agree	

13) Industry innovativeness relative to others	Disagree	Disagree	
14) Finance field innovativeness relative to others	Neither Agree nor Disagree	Disagree	

With respect to the attitude questions, in Q9 (Q9 – Table 2), participants were asked if their innovativeness decreased with their years of experience the median and mode were both 'Disagree'. The same was observed for Q10 (Q10 – Table 2), where participants were asked whether their innovativeness decreased with their years as an FDM and Q11 (Q11 – Table 2), where participants were asked whether their innovativeness decreased with their organisation's revenue growing. Although it could be argued that innovativeness could be increasing as a participant is in the workforce longer allowing them to observe more innovations and gain experience, caution should be exercised interpreting the result as it takes

a quite reflective individual to consciously admit their innovativeness was reduced with age, years as FDM, and growing organizational revenue.

For Q12 (Q12 – Table 2), where participants were asked if their innovativeness was high relative to others in their field, the median and mode were 'Agree'. It could be contended that it is a somewhat expected perception that participants themselves felt they had high innovativeness compared to others therefore results should be carefully interpreted given individuals could find it hard to admit lower innovativeness relative to peers.

For Q13 (Q13 – Table 2), where participants were asked if relative to other industries their industry did not demonstrate innovativeness and for Q14 (Q14 – Table 2), where participants were asked if the field of finance relative to other fields had not been as innovative, the median and mode were both 'Disagree'. It could be said that participants felt that they worked in industries demonstrating innovativeness, but this could also be a reflection of their perceptions of themselves as innovative (Q12).

To further explore the influence and correlation of study variables Spearman's Rho, was performed (Table 3). Significant correlations were revealed between five pairs of variables (highlighted yellow in Table 3). Decreased innovativeness with experience was positively correlated with both decreased innovativeness with years as FDM ($\rho(123) = 0.745$, $p = 0.00$) and decreased innovativeness with organizational ($\rho(123) = 0.442$, $p = 0.00$). By reversing the wording, the results indicate that the FDMs believe their innovativeness increases as their years in the FDM position increase and the organizational revenues increase. The latter is also supported by the statistically significant association of organizational revenue increase and innovativeness increase as years in FDM positions increase ($\rho(123) = 0.547$, $p = 0.00$). Further investigation will be required to confirm whether

they FDMs believe organizational revenues relate to their increased innovativeness as they accumulate years of experience.

A statistically significant association was also observed between the perception of the finance industry as less innovative and the perception that the FDMs innovativeness decreased as the organizational revenues increased ($\rho(123) = 0.227$, $p = 0.00$). This finding suggests that the more innovative the finance industry is perceived the more innovative the FDMs feel about their innovativeness aligned with the organizational revenue. In general, it seems that the more positive perception of innovativeness about themselves FDMs have, the more innovative they view their industry and their organizational growth (as proxied here by revenue). A similar explanation could be provided for the significant correlation between the industry of the FDM and the finance sector ($\rho(123) = 0.396$, $p = 0.00$).

Table 3

Correlations using Spearman's Rho

Spearman's rho		innovativeness_yearsFDM	innovativeness_revenue	innovativeness_high	industrynot_innovative	financenot_innovative
innovativeness_experience	Correlation Coefficient	.745**	.442**	-0.147	0.062	0.026
	Sig. (2-tailed)	0.000	0.000	0.105	0.492	0.775
innovativeness_yearsFDM	Correlation Coefficient	1.000	.547**	-0.125	0.162	0.104
	Sig. (2-tailed)		0.000	0.169	0.074	0.251
innovativeness_revenue	Correlation Coefficient		1.000	-0.053	.227*	0.124
	Sig. (2-tailed)			0.561	0.012	0.173
innovativeness_high	Correlation Coefficient			1.000	-0.158	0.102
	Sig. (2-tailed)				0.080	0.262
industrynot_innovative	Correlation Coefficient				1.000	.396**
	Sig. (2-tailed)					0.000

To address the hypotheses of the study one-sample Chi-Square tests were performed (Table 4) for the *innovativeness of Hong Kong FDMs* with the *years of work experience*

($H1_0$), the *years as FDMs* ($H2_0$), the *organisation revenues* ($H3_0$), and the *industry type* ($H4_0$). All tests resulted in statistically significant associations ($p < 0.05$) suggesting the rejection of the null hypothesis in favour of their alternative forms. These results support the theoretical framework of the study confirming the perceived innovativeness of Hong-Kong FDMs aligns with their perceptions about their work experience, their experience as FDMs, the innovativeness of their industry, and their organization size as proxied by its revenues.

Table 4

One sample Chi-Square tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of innovativeness_experience occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
2	The categories of innovativeness_yearsFDM occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
3	The categories of innovativeness_revenue occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

With respect to the research question of the study it appears that lack of experience in the field and also as FDMs, along with industry type and organizational size can be viewed as factors that are limiting the innovativeness of Hong Kong FDMs. With respect to organisational size as proxied by revenues it appears that the smaller organizations are viewed as limiting the innovativeness of FDMs more than the larger ones. This could be attributed to the fact that organizational survival is more critical at smaller organizations than larger ones and thus the consideration of, and financial ability to undertake innovations might be viewed more as risk that they are not willing to take.

Discussion

Overall, the study aimed to identify factors that contributed to the lack of innovativeness of FDMs in Hong Kong. More specifically, the research question looked at whether there was a statistically significant negative correlations between the years of experience, years as FDM, organisation revenues (a proxy for organisational size) and the innovativeness of Hong Kong FDMs. The findings appeared to show that a lack of experience in the finance field and as an FDM, along with industry type and organisational size as proxied by revenues, are factors that limit the innovativeness of Hong Kong FDMs. These study findings may be useful in understanding that despite the belief of most FDMs in the sample that they display innovativeness as do their organisations' industry and the finance field, there are in fact other factors at play which hamper innovativeness, such as finance employees resistance to change (Tuff, 2015) or the changing view of how important CFO's consider innovation (Erden, 2017) yet to fully mature.

There were 123 participants that validly completed the self-assessed questionnaire that formed the sample size of the study. The study was characterised by responses from males with the median age group being 40-50 years old. The results of the study showed a large proportion of participants in the Financial Services industry (44 of 123 participants) and Professional Services industry (36 of 123 participants), which reflected typical career pathways for FDMs. The findings also supported a potential gender bias inherent in the Hong Kong leaders in the finance industry which were representative of the population. The age group also reflected the fact that to have the requisite experience to be considered an FDM and be in charge of decisions at an organisation, a certain level of work experience was required.

It was assumed for the purposes of this study that the quantitative methodology with the correlational research design were appropriate for the topic under investigation. Additional assumptions included the sample size and participant recruitment (as a realistic reflection of the population) as well the statistical analysis methods applied on the collected information. The limitations of the study include the possibility of gender bias and confirmation bias from participants themselves in terms of innovativeness. There could also have been cultural or location biases given the study was focused solely on FDMs in the city-state of Hong Kong, which may display different characteristics from other cities, regions, or countries. Although the sample was representative of the population, the network of the researcher, being in favour of more internationally trained FDMs, could have also biased the result.

Future research could consider a wider sample of participants from different educational backgrounds, or request responses on other factors that impact on innovativeness such as organisation structures, funding, government support or team size. One could also conduct further research to validate and potentially eliminate any age or sex biases in this survey. In addition, the study could be extended to other linguistically or culturally comparable locations such as Singapore, the Greater Bay Area in Southern China, Mainland China or other global financial centres such as New York, London or Tokyo that would allow the emergence of potential cross-cultural influences. Future research could also look at other participant types such as CEOs, general staff, technical staff or administrative staff. These may reveal cultural, societal, political or other factors at play that impinge or aid innovativeness in FDMs or other types of participants.

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Appendix A

Survey Questions:

Introduction

The purpose of the research is to understand what factors contribute to the lack of innovativeness of Finance Decision-Makers (FDMs) in Hong Kong. I have identified you as an FDM, a senior individual in the accounting and/or finance field and invite you to participate.

The survey comprises 14 questions and is a mix of multiple choice and fixed inputs and should take approximately 5 minutes in total. Demographic data with no personally identifiable information are collected purely for analysis and validation purposes.

Feel free to stop at any time and ask the researcher for assistance and thanks for your help in participating to help contribute to the field of research.

Demographics Section

(Q1) What gender do you identify with?

(a) Male (b) Female

(Q2) What is your age? _____ (in years, range 22-80)

(Q3) What cultural region do you most identify with?

(3.1) East Asia

(3.2) Rest of Asia

(3.3) Oceania

(3.4) Europe

(3.5) North America

(3.6) South America

(3.7) Middle East

(3.8) Africa

(Q4) How many years of work experience do you have? _____ (in years, range 1-60)

(Q5) How many years of experience have you had as a Finance Decision-Maker (FDM)? _____ (in years, range 1-60)

(Q6) How many years have you been employed in your current organisation? _____ (in years, range 1-60)

(Q7) What is the approximate total global consolidated revenue of your organisation (in USD) in the current financial year?

(7.1) USD0 - 100,000

(7.2) USD100,001 - 1,000,000 (1 million)

(7.3) USD1,000,001 - 10,000,000 (10 million)

(7.4) USD10,000,001 – 100,000,000 (100 million)

(7.5) USD100,000,001 – 1,000,000,000 (1 billion)

(7.6) USD1,000,000,001 – 10,000,000,000 (10 billion)

(7.7) USD10,000,000,001 – 100,000,000,000 (100 billion)

(7.8) Over USD100,000,000,000 (100 billion)

(Q8) Which industry are you currently working in?

(8.1) Financial services

(8.2) Professional services

(8.3) Education

(8.4) Health

(8.5) Tourism

(8.6) Property and construction

(8.7) Trade and logistics

(8.8) Retail/Wholesale

(8.9) Manufacturing

(8.10) Resources/mining

(8.11) Other

Rationale: The preceding questions on demographics collect data about respondent characteristics to ensure that they meet the basic requirements of the study and to collect data across a variety of industries. They also allow for analysis as to their influence on the results and potentially provide insights for recommendations for future research.

Subject-matter questions

(Q9) My innovativeness did not increase with my years of experience.

(a) Strongly disagree (b) Disagree (c) Neither Agree nor Disagree (d) Agree (e) Strongly Agree

Rationale: This question aims to provide support for H1 and determine if greater work experience is positively correlated with greater innovativeness. As the literature suggests the

need for innovation is increasing (Frigo & Snellgrove, 2016), greater work experience over time could correlate with innovativeness.

(Q10) My innovativeness did not increase with my years as a Finance Decision-Maker (FDM), in my organisation?

(a) Strongly disagree (b) Disagree (c) Neither Agree nor Disagree (d) Agree (e) Strongly Agree

Rationale: This question aims to provide support for H2 and determine if greater FDM experience is positively correlated with greater innovativeness. Similar to question 9, as the need for innovation is increasing (Frigo & Snellgrove, 2016), greater years as FDM over time could correlate with innovativeness.

(Q11) My innovativeness did not increase as the amount of revenue in my organisation grew?

(a) Strongly disagree (b) Disagree (c) Neither Agree nor Disagree (d) Agree (e) Strongly Agree

Rationale: This question aims to provide support for H3 and determine if greater revenue in an organization is positively correlated with greater innovativeness. Innovation is a crucial capability for organisations both large and small (Gregersen, 2013), therefore it is important to determine the influence of organisation size on innovativeness.

The above set of questions are all influencing factors (experience, staff, revenue) on the level of innovativeness and we need to measure their respective levels of influence and correlation as FDMs are changing their views on innovation (Erden, 2017).

(Q12) I believe that my innovativeness is high compared to others in my field.

(a) Strongly disagree (b) Disagree (c) Neither Agree nor Disagree (d) Agree (e) Strongly Agree

Rationale: This question aims to provide support for H1-H4 because it is determining the baseline level of innovativeness as when Accounting is the topic at hand, it is often linked to established and stable companies, further it is suggested there is an impression that the FDM role in fact runs counter to innovation (Davila et al., 2009) so we need to know if it is an individual or industry issue.

(Q13) Relative to other industries, the industry I currently work in does not demonstrate innovativeness?

(a) Strongly disagree (b) Disagree (c) Neither Agree nor Disagree (d) Agree (e) Strongly Agree

(Q14) The field of finance has not been as innovative as other fields.

(a) Strongly disagree (b) Disagree (c) Neither Agree nor Disagree (d) Agree (e) Strongly Agree

Rationale for Q13 and Q14: This question seeks to provide support for H4 as it compares whether working in different industries impacts upon innovativeness. As different industries have different expectations of FDMs (Egeland et al., 2017) it is critical to obtain a view on which industries are considered by participants to display innovativeness.

Pilot Questionnaire Feedback Form

How long did it take you to complete the questionnaire? (input in minutes)

Were any of the questions unclear or difficult to answer? (yes/no, then list question number)

If Yes, which ones and why? _____ (list question followed by reasons)

Considering the subject of lack of innovativeness of Finance Decision-Makers (FDMs) in Hong Kong, do you believe there was anything missing from the questionnaire? (yes/no, list question number if relevant).

If Yes, which ones and why? _____ (list question followed by reasons)