

Conference Program

March 29-31, 2017

ACEAIT

Annual Conference on Engineering and Information Technology

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APLSBE

Asia-Pacific Conference on Life Science and Biological Engineering

ISFAS

International Symposium on Fundamental and Applied Sciences

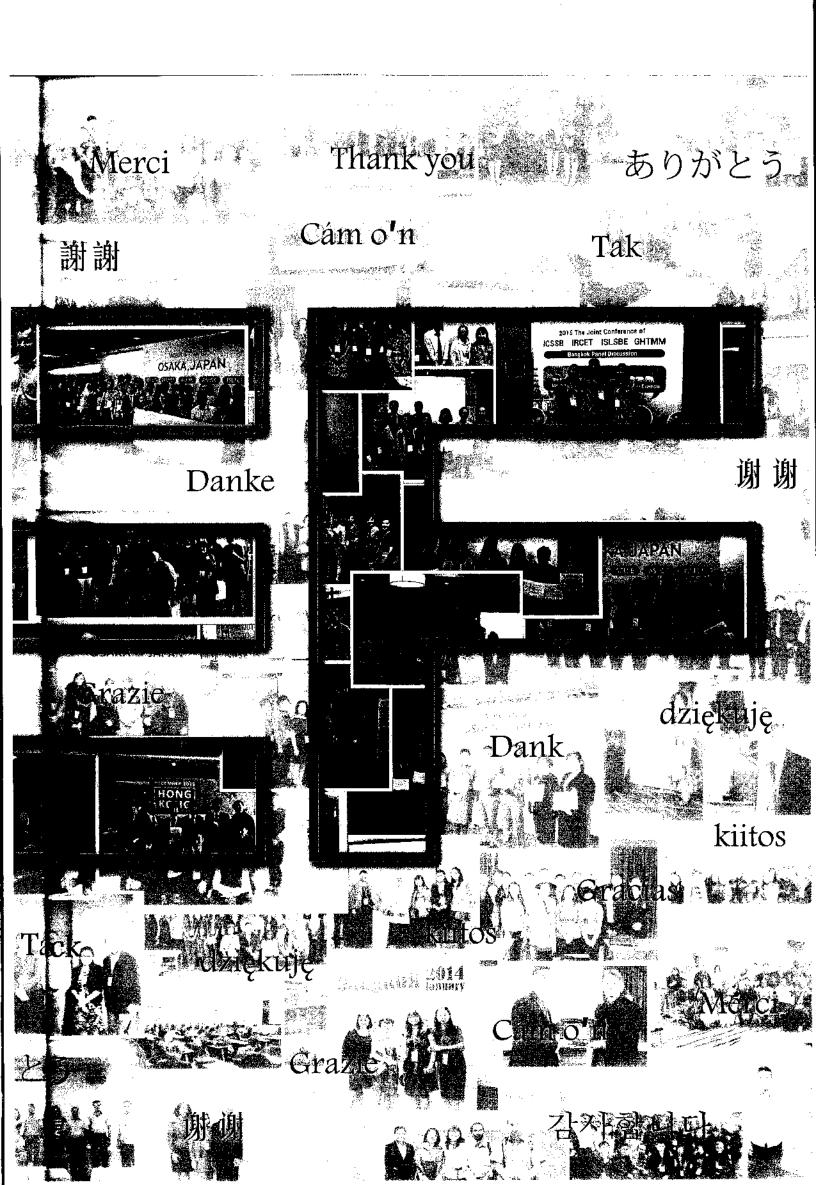
ICBASS

International Conference on Business and Social Science

ISEPST

International Symposium on Education, Psychology and Society





Osaka Japan

August 14-16, 2017 Venue: Osaka International Convention Center

Important Dates:

Abstract/Paper Submission Deadline	May 1, 2017
Notification of Acceptance/ Rejection	May 19, 2017
Due Date for Final Paper and Registration	June 12, 2017



Annual Conference on Management and Social Sciences Website: http://www.acmass.org/

Finance

Society

Communication

Topics:

- Business
- Management
- Culture
- Politics
- Economics
- Law
 - Education
 - Psychology

- Secretariat
 - acmss@acmass.org

ISEAS

International Symposium on Engineering and Applied Science Website: http://www.iseas.org

Topics:

- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Electrical & Electronic Engineering
- Mechanical Engineering
- Material Science Engineering
- Fundamental & Applied Sciences
- Environmental Sciences
- Computer & Information Sciences

Secretariat

iseas@iseas.org

Conference Program

March 29-31, 2017 Nagoya, Japan

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International Symposium on Education, Psychology and Society

ACEAIT

Annual Conference on Engineering and Information Technology

ISBN 978-986-89298-6-9

APLSBE

Asia-Pacific Conference on Life Sciences and Biological Engineering

ISBN 978-986-5654-49-8

ISFAS

International Symposium on Fundamental and Applied Sciences

ISBN 978-986-89298-5-2

ICBASS

International Conference on Business and Social Science

ISBN 978-986-89298-7-6

ISEPST

International Symposium on Education, Psychology and Society

ISBN 978-986-89298-8-3

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Education & Culture / Communication & Society / Marketing & Management /
Psychology

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Welcome Message

Local Host

Michiko Miyamoto

Professor Akita Prefectural University, Japan

Dear Conference Delegates,

I would like to extend a very warm welcome to all of you to joint conferences in Nagoya, Japan, organized by the Higher Education Forum (HEF).

Nagoya is located at the center of Honshu (the main island of Japan) and has a long history dating back 1900 years, when Atsuta Jingu (one of Japan's most important Shinto shrines) has a close relationship with the legendary people who appear in Kojiki (the oldest history book of Japan), was established. Nagoya is the birthplace of three notable feudal lords, Oda Nobunaga, Toyotomi Hideyoshi and Tokugawa Ieyasu, and developed as the castle town of the Owari, one of the three branches of the ruling Tokugawa family during the Edo Period (1603 - 1867). Nagoya plays an important role in Japan's industrial society. The Toyota Motor Corporation, a global automotive industry leader, maintains its headquarters just outside of Nagoya. Today, Nagoya continues to draw attention and keeps on developing as a Japanese international city.

Nagoya has many famous attractions to entice the keen traveler, including Nagoya Castle (one of Japan's Three Famous Castles), Atsuta Jingu, and Osu Kannon Temple (a popular Buddhist temple in the heart of the city).

Nagoya is home to arguably some of Japan's best food as well. It has always been a popular destination for people in the know with some of the country's best and most interesting culinary delights, such as Miso Katsu (Deep fried pork cutlet topped with a thick miso sauce), Tebasaki (Deep fried spicy chicken wings), Miso Nikomi Udon (an udon that's stewed in a miso based broth with hatcho-miso), Ankake Spaghetti (spaghetti topped with a spicy and sticky sauce), Tenmusu (A rice ball containing shrimp tempura).

Enjoy this opportunity to both share your research and experience Nagoya!.

Michiko Miyamoto Local host Professor, Akita Prefectural University

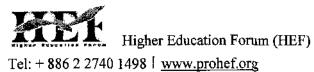
Registration

The registration desk will be situated on the 2F of Building 2 at the Nagoya Congress Center during the following time:

08:30-16:00 Thursday, March 30, 2017 08:30-14:00 Friday, March 31, 2017

Lunch Venue: Cafeteria Cascade on B1F of Building 3

Organizer



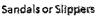


■ A Polite Request to All Participants

Participants are requested to arrive in a timely fashion for all addresses, whether to their own, or to those of other presenters. Presenters are reminded that the time slots should be divided fairly and equally between the number of presentations, and that they should not overrun. The session chair is asked to assume this timekeeping role and to summarize key issues in each topic.







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Shorts

Preparation for Oral Presentations

All presentation rooms are equipped with a screen, an LCD projector, and a laptop computer installed with Microsoft PowerPoint. You will be able to insert your USB flash drive into the computer and double check your file in PowerPoint. We recommend you to bring two copies of the file in case that one fails. You may also connect your own laptop to the provided projector; however please ensure you have the requisite connector.

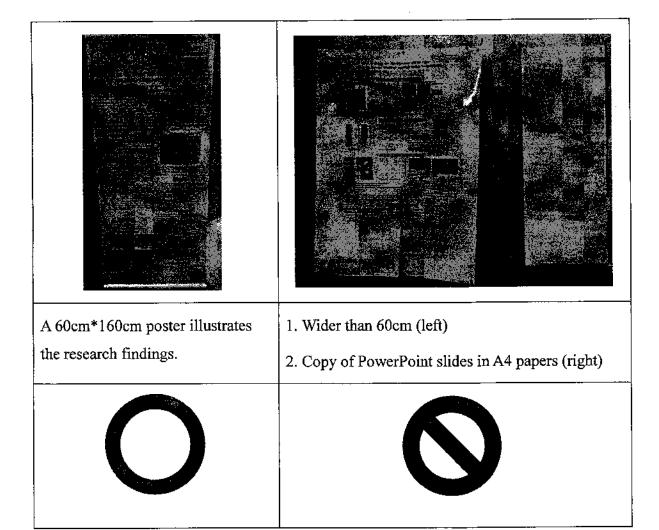
Preparation for Poster Presentation Materials Provided by the Conference Organizer:

- 1. X-frame display & base fabric canvases (60cm×160cm)
- 2. Adhesive tapes or binder clips

Materials Prepared by the Presenters:

- 1. Home-made Poster(s)
- 2. Material: not limited, can be posted on the canvases
- 3. Recommended poster size: 60cm*160cm





International Committee of Nature Sciences

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Abdelmalik Serbout	University of physical and sports activities Djelfa Algeria	Algeria
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「「「「「「」」	Michiko Miyamoto	Akita Prefectural University	Japan
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12			

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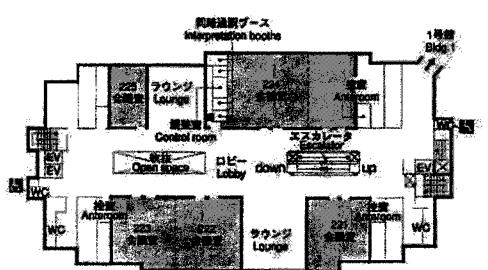
Maria Cristina M. De los Santos	Kyungdong University-Global Campus	South Korea
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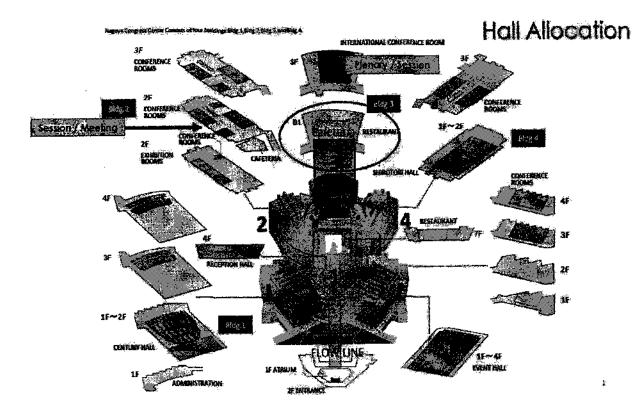
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Yuki Yokohama	Kanto Gakuin University	Japan
Zabihollah Rezaee	The University of Memphis	USA
Zhou Xiao	Fudan University	China

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Floor Map (2nd floor, Building 2)



2F



Special Thanks to Session Chairs

Cholid Badri Preechaya Kittipaisalsilpa Kanchana Chokriensukchai Marilyn Somera Luzano Hwee Ling Lim Lih-Wu Hourng Mei-Shiu Chiu Donald Louis Amoroso Chung-Chan Hung Wai Kit Ng Y. Lakshmi Malroutu Chun-Hung Cheng Sanhawat Chaiwong Chih-Yung Lin John P.T. Mo Ahmad Salihin Bin Samsudin

Charatchai Yenphayab

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Conference Schedule

Internal Meeting (HEF Staff Only)

- Time	Schedule and	Venne K
08:30-16:00	Registration	Foyer area
	Biological Engineering & Biomedical Engineering & Chemical Engineering	Room 221
.09:00-10:30	Politics & Law	
	Communication & Society	🔹 Room 223
10:30-10:50	Tea Break	Foyer area
	Keynote Speech	
	Auburn University Montgomery	Room 221
10:50-11:50	Topic: Innovation in ASEAN.2025	
	Education (1) & Culture	Room 222
	Marketing & Management (1)	Room 223
11:50-13:00	Lunch Time	Cafeteria Cascade
11.30-13.00		(B1, Bldg. 3)
	Mechanical Engineering and Technology (1)	- Room 221
13:00-14:30	Education (2) & Culture	4Room,222
	Marketing & Management (2)	Room 223
14:30-14:50	Tea Break	Foyer area
Starting Starting	Civil Engineering & Materials Science and	Room 221
14:50-16:20	Engineering	Room 222
	Business (1) & Economics (1)	Room 223

Time	s Internation 5
	Poster Session (1)
09:30-10:30	Computer Engineering and Technology eFlectrical Engineering and
	Technology / Information Engineering and Technology
	Poster Session (2)
11:00-12:00	Education & Culture / Communication & Society / Marketing &
	Management
	Poster Session (3)
13:30-14:30	Materials Science and Engineering #Biological Engineering 7 Biomedical
	Engineering / Chemical Engineering
15:00-16:00	Poster Session (4)
	Mechanical Engineering and Technology

Time	Schedule	. Korvenue 👯
08:30-14:00	Registration	Foyer area
	Computer Engineering and Technology & Information 7	Ropm 221
09:00-10:30	Environmental Engineering & Geology, Earth and Environmental Sciences	Roop 222
	Banking & Finance & Business (2) & Economics (2)'s	Room 223
10:30-10:50	Tea Break	Foyer area
	Mechanical Engineering and Technology (2)	Room 221
10:50-11:50	Fundamental Sciences & Nanotechnology	
	Agricultural Engineering and Technologies	
11:50-13:00	I	Cafeteria Cascade
11.50-15:00	Lunch Time	(B1, Bldg. 3)
13:00-14:30	Electrical Engineering and Lechnology	Room 221
10.00-14.00	Life Sciences	Room 222

Cime -	Linformation		
100 20 100 20	Poster Session (5)		
- 09:30-10:30	Life Sciences (1) Manotechnology		
	Poster Session (6)		
11:00-12:00	Life Sciences (2). Auricultural Engineering and Technologies / 44, 18, 24, 24		
	Environmental Engineering / Geology, Barthand Bhytonmental Sciences		

Keynote Speech

Room 221, 2nd Floor

10:50-11:50, Thursday, March 30, 2017

Topic: Innovation in ASEAN 2025

Dr. Donald L. Amoroso
Lowder-Weil Endowed Chair and Professor of Information
Systems
Auburn University Montgomery
President and CEO of Axcell LLC



Abstract:

With the entrance of the Association of Southeast Asian Nations, there has been a strong initiative for innovation. The size of ASEAN is projected to have a combined GDP of \$3.5 trillion by 2020 and projected to rank as the 5th largest economy in the world. With over 125 million consumers and a projected populations in 2020 of 800 million people, there is much potential for innovation, impact, and social change. ASEAN Impact Challenge is a regional challenge designed for impact-driven innovators within the ASEAN region. The initiative is open to innovations with the potential and capacity to develop and scale, while providing long-term solutions and impact on pressing community, social and environmental issues around the theme of Innovations for Urban Impact. We will discuss the ASEAN ecosystem and the opportunities for innovation over the next ten years.

Brief Introduction of Dr. Donald L. Amoroso

Dr. Amoroso is the Lowder-Weil Endowed Chair and Professor of Innovation and Strategy at **Auburn** University Montgomery, Alabama, United States. He is Visiting Professor and **Research** Fellow at Asian Institute of Management in Manila, Philippines and Palawan State **University**, Philippines. He has been Visiting Professor at Tsukuba University, Japan, Addis **Ab**aba University, Ethiopia, and Australian Defence Force Academy, Canberra Australia. His **industry** experience includes working in General Electric Capital as Assistant Vice President **and** Director of Enterprise Solutions, with Solista/GartnerGroup as a consulting partner, and **with** Northrup-Grumman in finance. He worked with the Center for the Commercialization of Advanced Technologies (CCAT) in Washington D.C. and San Diego where he led over 24 innovation projects and assisted in the start up of 14 new companies. Dr. Amoroso received his MBA and Ph.D. from the University of Georgia in 1984 and 1986, respectively.

In research, Dr. Amoroso is conducting a five-year project studying consumer intention to adopt mobile wallet applications in different ASEAN ecosystems in Southeast Asian countries, Japan, China, and Korea. Dr. Amoroso is working with colleagues at twelve Japanese, fifteen Chinese, and six Philippine universities to understand innovation processes in organizations, in addition to consumer adoption. Dr. Amoroso has been on the editorial board of key journals and has written five books, published in 121 refereed academic journals and over 70 conferences in the past 30 years.

In consulting, Dr. Amoroso is Founder and CEO of Axcell LLC Consulting Group, with over 25 years of consulting, mentoring, seminars, and facilitation in the spaces of leadership, innovation and strategy. Organizations that want to break the competitive boundary in their industry consult with Dr. Amoroso, especially in the area of big data and analytics, innovation and design thinking, and strategic planning with Blue Ocean Strategy. He coaches and mentors over 65 executives and has been working with organizations to establish portfolio management offices (PMO) and has mentored 207 aspiring CIOs in multiple countries.

Banking & Finance & Business (2) & Economics (2)

Friday, March 31, 2017

09:00-10:30 Room 223

Session Chair: Chih-Yung Lin

ICBASS-8755

The Influence of Risk Culture on Firms' Returns in Times of Crisis Chih-Yung Lin | Yuan Ze University Dien Giau Bui | National Taiwan University Yuan Ze University

ICBASS-8703

Stock Feature Extraction from Trend Lines Generated by Hough Transform Method Parisut Jitpakde | Omicron Laboratory Niran Pravithana | Omicron Laboratory Bunyarit Uyyanonvara | SIIT, Thammasart University

ICBASS-8688

IP Practice of Creative Professionals Living and Working in a 'Foreign' Country

Fangyan Tang | University of Nottingham Ningbo China
Sue Cobb | University of Nottingham (UK)
Xu Sun | University of Nottingham Ningbo China
Effie Law | University of Leicester
Rob Edlin-White | University of Leicester
Qingfeng Wang | University of Nottingham Ningbo China
Xiaosong Zhou | University of Nottingham Ningbo China

ICBASS-8695

Do the Ritual Dimension of Consumer Behavior and Religion Play Their Role in Innovation of Family Firm? Susminingsih | University Islam Pekalongan K. Chandra Kirana | Sarjanawiyata Tamansiswa University

Sri Hermuningsih | Sarjanawiyata Tamansiswa University

Imam Kanafi | University Islam Pekalongan

Do The Ritual Dimension Of Consumer Behavior And Religion Play Their Role In Innovation Of Family Firm?

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Abstract

The primary purpose of this paper is to explore the role of ritual dimension of consumer behavior and religion in innovation in family firm organization. There is no doubt that the economic life of Pekalongan city based on batik creative industry has become a tradition in the life of the people, passed down from generation to generation. Thus Pekalongan is widely known in Indonesia as the Batik City. The presence of various economic infrastructures such as batik market, batik villages and batik galleries all over the city, confirms that the economic life of the city is based on the art, craft and culture of batik. The batik exports were mainly to Malaysia, UEA and Thailand. In 2009, batik cultural heritage was officially recognized by UNESCO through the decision of the 4th Meeting of the intergovernmental Committee for Safeguarding the Intangible Cultural Heritage in Abu Dhabi UAE on 2nd October 2009.

This paper built with a number of interesting facts. First, batik becomes an important industry in order to creating jobs and revenue for society. Second, most of the batik industry is family business. Third, ritual dimensions of consumer behavior affect the batik trading. Fourth, the sustainability of family firm organization of batik depends on innovation of batik product itself. This article makes three main contributions. First, we apply the ritual dimension of consumer behavior and its influence in level of batik trading. Second, batik sales depend on consumer tastes. Third, by investigating consumer behavior, and religion affected on it, this study draws the need of innovation in family firm organization. This paper consider that value drive man to innovate their production by creating "new" objects. Then, the understanding of subjective and intangible value, namely religious and culture become an important to consideration in order to learn the relationship between consumer and innovation behavior.

We will shed light on ritual dimension of consumer behavior (RDCB), religion (Re) and their interrelationship to look closely in family firm innovation (FFI). There are

more than 800 batik industries in Pekalongan City, Central Java. The descriptive analyze were used in this study. This paper assumed that consumption behavior affected by the value. When they make the decision to consumption, also based on value. Generally, they determine the value of product by the quality, uniqueness, and utility. Sometimes, the values depend on a quality of object, but sometimes depend on uniqueness, on its utility or any combination between them.

This research found that in batik industry, *homo moralis* or *homo sosialis* is going on the basis of the relationship between the worker and employer. The work climate that constructed at their place affects the enthusiasm to create new motif, new design because the worker feel happy and unstressed. Human resource should be innovation in every time as well as possible. The interaction between values and performance of organization similar with the new institutional theory which emphasized the importance of cultural factors in understanding the business as organization and innovation, especially intangible innovation.

The batik industry as cultural values form of the source of the behavior that's cultural rites of passages, especially in performances experience festivals such as Pekalongan batik carnival or international batik week, also in the marine charity event, marriage, death ceremony, and so on. More, this study try to understand the batik industry as a business negotiation which based on group learning that cover the family firm and consumer.

The results show that consumer behavior means ritual experience and religion associated with the innovation of batik industry as a material and cultural heritage. The value, religion and culture have an important role into the family firm. The relation helps to learn about of the modifying of batik production. The interaction between values and performance of organization similar with the new institutional theory which emphasized the importance of cultural factors in understanding the business as organization and innovation, especially intangible innovation.

Keyword: ritual, consumer behavior, religion, innovation, family firm.

A. Background

Batik industry in Pekalongan City has become a tradition in the life of the people, passed down from generation to generation. The presence of various economic infrastructures such as batik market, batik villages and batik galleries all over the city, confirms that the economic life of the city is based on the art, craft and culture of batik. This paper consider that value drive man to innovate their production by creating "new" objects. The understanding of subjective and intangible value, namely religious and culture become an important to consideration in order to learn the relationship between consumer and innovation behavior.

This article makes three main contributions. First, we apply the ritual dimension of consumer behavior and its influence in level of batik trading. Second, batik sales depend on consumer tastes. Third, by investigating consumer behavior, and religion affect on it, this study draws the need of innovation in family firm organization. Our study has the opportunity to inform the wider on family firm research. Ritual behavior often involves the extensive exchange of goods and services, which are often consumed at dramatic, ceremonial or even solemn occasions. The resulting literature sparked intense interest in consumer research that highlighted the cultural and social complexities of consumptions (Joy and Li, 2012, p. 142).

	Sub-distric	2011		2012		2013	
No		Business Units	Labor	Business Units	Labor	Business Units	Labor
1.	West Pekalongan	262	4.261	264	4.335	346	5033
2.	South Pekalongan	188	2.074	188	2.074	263	2575
3.	East Pekalongan	110	2.536	111	2.510	114	2483
4	North Pekalongan	71	1.073	71	1.073	80	1030
T	otal Amount	632	9.944	634	9.992	803	11.121

Table 1. The Amount of Effortand Labor Unit Batik Business Pekalongan City Until 2013

Source: Industrial Offices, CooperativesandSMEs of Pekalongan City.

From the table 1, the batik amount always to develop and bigger in every year. Batik industry as a company always seek a good product as a mainly factor to give a satisfaction for the consumer. There are many options that can be chose to get a high competition. Innovation of batik motif, clothing, coloring, marketing and others should be need as fast as possible. The consumer behavior has a relationship with producer innovation. More innovative, there is more profitable. It seems reasonable to assume that innovation in the economic subsystem, especially at the organizational level, is driven by the desire to make profits (Johannessen, 2013, p. 1211). Religion's contribution to society is a formalized structure in which humans help one another connect with God and, in so doing, explore and respond to the divine within themselves and others. Moreover, the concepts of economic institution and economy activity are merely useful abstractions for describing human interactions (Davies, 2004, p. 38 & 39). Taken together, religion has been a significant force in the lives of many individuals, its role in consumer choice can be characterized as unclear or "fuzzy" (Delener, 1994, p. 36).

Consumption itself, as a process whereby agents engage in appropriation and appreciation, whether for utilitarian, expressive or contemplative purposes, of goods, services, performances, information or ambience, whether purchased or not, over the agent has some degree of discretion (Warde, 2005, p. 137)

Many literatures have placed a lot of attention to the issue of consumption, religion and innovation. Previous research has stressed that consumers with a high degree of cognitive religious commitment viewed sales personal friendliness, shopping efficiency and product quality as being of greater importance in selecting a retail store than did those low in cognitive religious commitment. Muslim consumers, their findings suggest that there is no difference in consumer shopping behavior between devout and casually religious Muslim consumers, except for the trendy shopper type (Mokhlis, 2009, p. 78).Published research about human ritual experience comes primarily and traditionally (Rook, 1985, p. 251).The consumer decision and being a user connected to how much innovation to be done.

The consumer determine the value of product by the quality, uniqueness, and utility. Sometimes, the value depend on a quality of object, but sometime depend on uniqueness or on its utility or any combination between them. The behavioral economics has also been successfully combined with the analysis of behavior in general as well as with applied behavior analysis in human contextsFoxall (2013, p. 231).

B. Methods

This research used a qualitative research method. The primary data was collected withsemi-constructed interviews batik producer, consumer and local

governmentthrough the observation and documentation. We also used relevant international academic journal of consumer behavior, religion and innovation in family firm. The thematic analysis was used to identify the construction of contribution the ritual of consumer behavior and religion in innovation. The primary and secondary data were triangulated through combining the literature review, industry reports and the key issues about relation between religion and consumer behavior.

C. Results

Ritual dimension of consumer behavior

Indeed, the ritualization of the consumptive experience may better explain some purchase behavior than attitudinal variables such as identification or motivation. Below, we discuss three dimensions in family firm influence that we chose to examine. First, ritual dimension of consumer behavior, second religion and its influence on behavior consumption and third, innovation in batik family firm. Ritual is body language that functions like a natural symbol, facilitating interpersonal interactions (Rook, 1985, p. 252). Rituals often make life better (Vohn, 2013, p. 1719). It's first necessary to identify thesources of behaviorand meaning, there are human biology, individual aims and emotions, group learning, cultural values and cosmological belief.

No.	Primary Behavior Source	Ritual Type	Examples
1.	Cosmology	Religious Magic Aesthetic	Baptism, meditation, mass "Healing", gambling Performing arts
2.	Cultural Values	Rites of Passage Cultural	Graduation, marriage Festivals, Valentine's Day etc.
3.	Group Learning	Civic Small Group Family	Memorial Day Parade, elections, trials Pancake day, Fraternity initiation, business negotiations, office luncheons Mealtime, bedtime, birthday and holiday celebrations
4.	Individual aims and	· ·	Grooming, household rituals

Table 2.A Typology of Ritual Experience

		emotions				
	5.	Biology	Animal	Greeting, mating		
80	Source: Rook 1085 p 254					

Source: Rook, 1985, p. 254

Thebatikindustryasculturalvaluesform of thesource of the behaviorthat'sculturalrites of passages,

especiallyinperformancesexperiencefestivalssuch

asPekalonganbatikcarnivalorinternational batik week, alsoin themarinecharityevent, marriage, death ceremony, and so on. More, this study try to understand the batik industry as a business negotiation which based on group learning that cover the family firm and consumer.

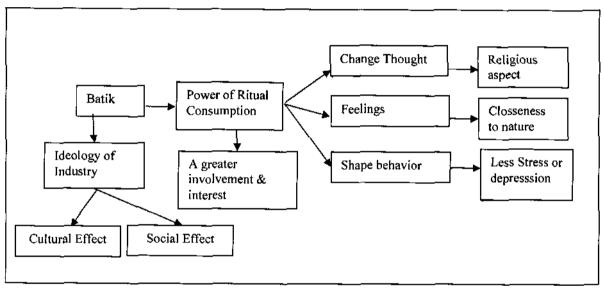


Figure 1. Theoretical Framework

Rituals mark life event, big and small. Rituals play a particularly prominent role in ancient and modern occasions for consumption. Rituals can enhance consumption (Vohn et, al (2013, p. 1714-1715). Moreover, ritual are an important part of society, and are a frequent topic of investigation among sociologists and anthropologists (Neale et.al., 2008, p. 1).

Religion and Its Influence in Behavior Consumption

Religion is one of the more frequently mentioned determinants of the moral values that underpin ethical standards (Emerson & Mckinney, 2010, p. 2). Religion, being an aspect of culture, has considerable influence on people's values, habits and attitudes, and it greatly influences lifestyle, which in turn affects consumer decision behavior (Delener, 1994, p. 36). Religion represents a potentially significant element in many, if not all, the problem-solving and decision making phases (Delener, 1994, p. 39), include in consumption decision.Beliefs, norms and value systems can influence the members of the community to behave and act in a particular way considered acceptable by the other members in the group (Rashid and Ibrahim, 2008, p. 908).

Differences in religious affiliations tend to influence the way people live, the choices they make, what they eat and whom they associate with. It would seem that obtaining an in-depth understanding of the dominant religion and its effect on consumer behavior would be essential to an intimate understanding of consumer choice in a particular context. Religious belief is a significant factor in influencing consumption behavior because of the rules and taboos it inspires. Furthermore, religiosity represents an inherent human value which tends to be stable over a fairly long period of time, and finally many elements of religiosity are observable, and therefore of pragmatic value to marketer. Religion recognizes the divinity of the human being in an economy when it advocates free competition, protection of property rights and encourages people to share and behave well toward one another (Davies, 2004, p. 37).

The Impact of Religious on Innovation in batik family firm.

The family can be both a help and a hindrance to the firm, and that the various dimensions of family influence impact the effectiveness of family firm innovativeness in terms of firm performance (Kellermans et.al, 2010, p. 1 &2). The study of innovative behavior in family firm is essential since the firms are governed by a set of unique set of norms, cultures and processes. Understanding how family influences can help or hinder a family firm's ability to exploit its innovativeness is important, since innovation helps to renew companies, enhance their competitive

advantage, spur growth, create new employment opportunities and generate wealth (Hayton & Kelley, 2006, p. 407).Innovation is the establishment of new concepts, procedures and/or technologies in an organization (Krauss, et.al. 2011, p. 3; Johannessen, 2013, p. 1195).

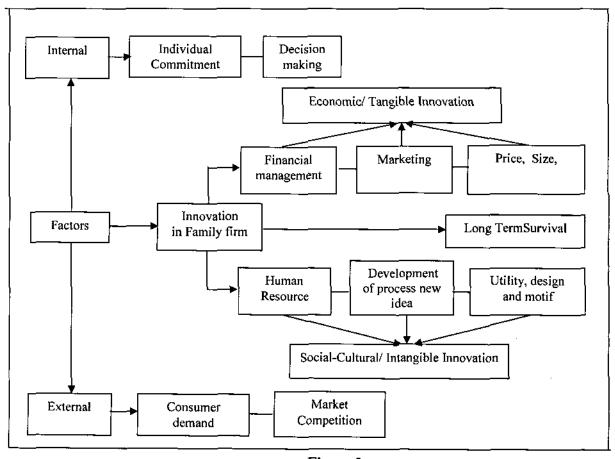


Figure 2. Innovation in Family Firm

Figure2 show thatinnovationinthe familybusinessis adependentvariablethatis influenced by twotypes offactors:internaland external independent variable. Individual commitment, decision making of single individual, financial performance and business experiences all include in internal factors. While consumer demand and market competition could be external factors, and have a great influence to push the role of innovation in family firm. The two factors simultaneously influence the behavior of innovation, for all dimensions: financial management, strategy, price,

packaging, promotion, human resource, development of process, utility, size, models and motif of batik. The willingness to adapt the economic change by innovation helps the batik entrepreneur to reach out the long term orientation.

Organizational innovations are related to new ways of managing organizations, as well as new business models. Historical examples of organizational innovations that have had great political value in the area of trade and business are the introduction of joint stock companies and cooperative movement. The cultural innovation are related to norms, values, habits, expectations and new ways of thinking; new ways of thinking relate to ideology (Johannessen, 2013, p. 1196 and 1198).

The work climate that constructed at their place affects the enthusiasm to create new motif, new design because the worker feel happy and unstressed. The interaction between values and performance of organization similar with the new institutional theory which emphasized the importance of cultural factors in understanding the business as organization and innovation.

The firm's activities are determined not only by its physical resources, but also by the firm's ability to use those resources. The resources of each firm may be deployed according to the routines of its employees, that is, according to the of heuristics that the firm has built up over time as efficient ways of undertaking common activities (Robertson and Yu, 2001, p. 185).

The values come from their belief, its religion beside their culture that they have since live before. Religion is concerned with man's relations with God, and with man's belief in the supernatural. It has great impact on nearly every human society because of the commonly shared belief that discovery of truth comes through revelation by supernatural power. In its organized form, religion also impacts business organizations (Chusmir & Koberg, 1988, p. 251). If a company has composite information about manifestation patterns for faith and work integration, it may bring many potential business benefits, including increased diversity and inclusion; avoidance of religious harassment or discrimination claims, respect for people of different faith traditions or worldviews, and possibly a positive impact on ethics programs, employee engagement, recruiting and retention (Miller & Timothy,

2010, p. 55). In Islamic view, the fatalism and non-fatalism or adoption to innovate or to change are the same meaning in case of the kind of value related to adopt the innovation. This result can be learn in Figure 3.

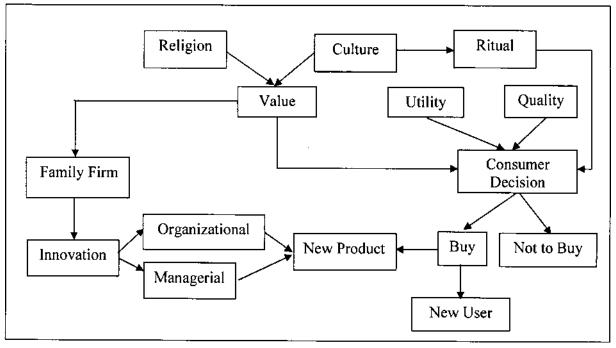


Figure 3. Conclusion of Relationship Between Religion, Consumer and Innovation

D. Conclusion

In batik industry, there is a strong connection in relation between producer values such fatalism and nonfatalism with consumer decision to consumption that also based on value. The relation helps us to learn about of the modifying of batik production. The motif, color, design, marketing strategy, management human resource, and many sides that need more to innovation. This paper analysis showed that the value understanding can help to explain consumers' innovation adoption. This paper found that innovation also applied in batik SMEs, include motif, design, material, strategy marketing and developing industry. This innovation required the individual's think; organizational and managerial innovation as well as economic (tangible) and social-cultural (intangible) innovation.

E. References

Chusmir, L.H., Koberg, C. 1988, "Religion and Attitudes Toward Work: A New Look at an old Question", *Journal of Organizational Behavior*, Vol. 9, No.3, pp. 251-262.

Davies, A. 2004. "The Role of Religion in The Economy", International Journal on World Peace, Vol.21, No. 2, pp. 37-42

Delener, N. 1994. "Religious Contrasts in Consumer Decision Behaviour Patterns: Their Dimensions and Marketing Implications", *European Journal of Marketing*, Vol. 28 No. 5, pp. 36-53.

Emerson, T.L.N., Mckinney, J. A. 2010, "Importance of Religious Beliefs to ethical Attitudes in Business", *Journal of Religion and Business Ethics*, Vol.1, Iss. 2, Article 5.

Foxall, R. G., Sigurdsson, V. 2013. "Consumer Behavior Analysis: Behavioral Economics Meets The Marketplace", *The Psychological Record*, Vol. 63, pp. 231-238.

Hayton, J.C. and Kelley, D.J. (2006), "A Competency-based framework for promoting corporate entrepreneurship", *Human Resource Management*, Vol. 45, pp.407-427.

Johannessen, J.A. 2013. "Innovation: A Systemic Perspective – developing a systemic innovation theory", *Kybernetes*, Vol. 42, No. 8, pp. 1195-1217.

Joy, Annamma and Eric P.H.Li, (2012), "Studying Consumption Behavior Through Multiple Lenses: An Overview of Consumer Culture Theory", *Journal of Business Anthropoly*, Vol. 1., No. 1, p. 159.

Kellermanns, F.W., Eddleston, K.A., Sarathy, R. and Murphy, F. (2010), "Innovativeness in Family Firms: a Family Influence Perspective, *Small Business Economy*, DOI 10.1007/s11187-010-9268-5.

Krauss, S., Pohjola, M., Koponen, A. 2011. "Innovation in Family Firms: an Empirical Analysis Linking Organizational and Managerial Innovation to Corporate Success", *Review Management Science*, DOI 10.1007/s11846-011-0065-6.

Miller, D.W., Timothy, E. 2010. "Rethinking The Impact of Religion onBusiness Values: Understanding Its Reemergence and Measuring Its Manifestation", *Journal of International Business Ethics*, pp. 49-57.

Neale, L., Mizerski, R., Lee, A. 2008. "Measuring Consumer Rituals: A Marketing Application", in Proceeding Winter American Marketing Association

Educators Conference: Marketing the Organization and its Products and Services, 15-19 February, Austin, Texas.

Rashid, M.Z and Ibrahim, S. (2008), "The Effect of Culture and Religiosity on Business Ethics: A Cross-Cultural Comparison", *Journal Business Ethics*, Vol.82, p. 908.

Robertson, P.L., Yu, T.F. 2001. "Firm Strategy, Innovation and Consumer Demand: A Market Process Approach", *Managerial and Decision Economics*, Vol. 22, No. 4,5, pp. 183-199.

Rook, D.W. 1985, "The Ritual Dimension of Consumer Behavior", *Journal of* Consumer *Research*, Vol. 12, pp. 251-263.

Vohn, K.D., Wang, Y., Gino, F., Norton, M. I. 2013. "Rituals Enhance Consumption", *Psychological Science*, 24, 9, pp. 1714-1721.

Warde, A. 2005. "Consumption and Theories of Practice", Journal of Consumer Culture, Vol. 5, No. 2 pp. 131-153.