INTRODUCTION

Background and Motivation

Papermaking, printing, gunpowder and compass are known as the Four Great Inventions. Among them, papermaking is named as Mother of Civilization for it has a profound impact on the spread of knowledge and flow of information (Kwong Xi Paper Factory, 2016). The invention of paper ends the history of using bamboo and wooden slips, hugely pushes ahead the circulation and development of culture and leads the whole world into a brand-new stage.

Taiwan is a beautiful island with many spectacular landscapes and peculiarly unique topography. As a result, it has developed various cultures and industries. Puli, located at the center of Taiwan, is famous for its 4Ws, that is, weather, water, wine, and women. During Japanese colonial period of Taiwan, Japanese discovered that water in Puli was pure, clean and low in Iron content which is suitable for cotton paper and Xuan paper to be made. Therefore, it ushered in a new era in history as papermaking town. With the usage of paper, it led to culture diffusion and historical inheritance.

Thanks to the foundation of manual papermaking which was established by the Japanese, it wasn’t prosperous until Taiwan’s Restoration in 1945. Literati who retreated to Taiwan were fond of painting and calligraphy so that there was a huge demand of paper. Since the transportation between China and Taiwan was broken off, Xuan paper for painting and calligraphy was not easily available. As a result, the situation drove Taiwan’s economic development and papermaking factories in Puli sprung up like mushrooms. Techniques and equipment were constantly making process and passed down in master-and-apprentice or father-and-son way (Kwong Xi Paper Fac-
After the social change in Taiwan, papermaking industry was forced to confront industrial transformation (Huang Huan-Jhang, 2015). Consequently, the papermaking industry in Taiwan progressively formed closed industry chains. Besides, there were few industries devoted to conservation, promotion and education of paper culture. Hence, Mr. Huang Huan-Jhang took the lead in promoting the idea of industrial tourism in papermaking field (Lin, 2009; Luangsa-Art, 2016). With few previous cases, they underwent much difficulty and vagueness but they were still brave to attempt the task, and to position themselves. In addition to conserving traditional culture, they challenged integration and innovation of new fields and proposed five-sense experience activities, emphasizing the value of culture education. Meanwhile, they took care of environmental issues as well and dedicated to making artistic paper which was made of litter materials. Comparing to many current tourism factories, Kwong Xi Paper Factory specifically stood out. Undergoing numerous experiments, they went step by step on themselves to explore future direction and finally succeeded in today’s industrial transformation which set up an example for traditional papermaking industry.

**Research Objectives**

In view of the preceding research background and motivation, from the heyday of prosperously export trade to industrial recession and offshore, traditional papermaking industry in Taiwan is forced to confront industrial transformation. As a result, new business mode of tourism factory is adopted. While keeping industry and traditional culture alive, it also tries to seek more opportunity and possibility in creative and innovative way in order to make traditional papermaking industry and tourism industry complement and supplement each other, and furthermore to revive itself. In particular, this study is mainly conducted to investigate characteristics and culture of traditional papermaking industry and tourism factory in Taiwan by literal review and case study, and to figure out the essential factors in the process of culture conservation so as to achieve culture regeneration and industrial recovery derived by tourism factory.

To achieve the research objectives mentioned as above, three primary research questions can be addressed as follows:

1. What are the key characteristics of tourism factory which can help achieve culture conservation?
2. What is the tendency for traditional papermaking industry in Taiwan?
3. What are the major elements in culture conservation and regeneration of traditional papermaking industries in Taiwan?

**Significance of the Study**

The contribution of the study is to carry out the current circumstances of the traits and culture of traditional papermaking industries in Taiwan, and to explore suitable methods and strategies to conserve culture by developing tourism factories. A couple of studies on Kwong Xi Paper Factory have looked for the relationship of industry transformation or tourism factory, but they might not accurately present the conservation of culture and industry value. As a consequence, this study will be one of the few studies that put in more efforts to investigate the integrated field of culture conservation and regeneration of Kwong Xi Paper Factory derived by tourism factory. It is hoped that this study can provide valuable and inspiring information for anyone who is interested in conducting relative research on the fields of culture conservation, traditional papermaking industry or tourism factory.

**LITERATURE REVIEW**

The literature review will be divided into three aspects. The first section discusses relative theories about culture conservation and regeneration. The second section explores development history of traditional papermaking industries in Puli. And the third section displays development tendency of tourism industry. It is hoped to provide the foundation of the present research.

**Culture Conservation and Regeneration**

Conservation is the long-term plan and needed measures for
cultural assets. It means that keep the place in good condition in order to conserve the whole processes which are meaningful to people (Tseng, 2010). Hong (2006) empathizes that conservation of intangible culture should focus on approval and respect for the production process which includes the grassroots working on, cultural continuity and cultural conservation. In addition, conservation measures should put strengthening communities themselves in first priority. In other word, the uniqueness of intangible cultural assets puts more emphasis on inheritance of skills, techniques and knowledge. It is people-oriented and the key elements of exchange and understanding between people. In short, it is a live cultural carrier (Chen, 2005; Rijal, 2016).

On the other hand, regeneration is the integrative redeveloping process of history, cultural assets, locality, modern economy and society (Tseng, 2010). Weng (2014) mentions that in the phrase of cultural regeneration, regeneration means a new life and rebirth. Through the transformation of cultural activities, local culture gains the opportunity to renew. It focuses on the activation and inheritance of culture, and, moreover, creates assets of local culture.

In conclusion, culture conservation and regeneration closely bind up and complement each other. The value of culture conservation and regeneration is not limited to the object itself, but on the historical field of sequence and situation which is derived by itself (Tseng, 2010). Intangible culture has the dynamic characteristic which keeps changing with time and space. When inheriting tradition, it should also link to modern life, giving meaning and creativity to the new era (Hong, 2006).

Traditional Papermaking Industries in Puli

According to Directorate General of Budget, Accounting and Statistics of Executive Yuan (2001), the definition of papermaking industry is the industry that makes paper pulp from wood, bamboo, residue of sugar cane, discarded cloth, discarded paper, cotton and other plant fiber, and makes paper and cardboard from paper pulp. Puli is famous for the papermaking industry. The first papermaking factory in Puli and in Taiwan was established in 1940 by Japanese. In 1970s, there were approximately 53 papermaking factories. Among them, there were 48 factories in Puli. Furthermore, Taiwan was one of few areas that could produce cotton paper and only Puli could make it (Ting, 2001). Diverse facts proved the heyday of papermaking industry in Puli. From 20000-ton scale after Taiwan’s Restoration, it has gradually developed into 4.5 million-ton scale nowadays. It was the result of years of efforts (Su, Lin, Wang, Cheng & Lii, 2002). However, Taiwan’s traditional papermaking industry is facing difficulties inside and outside of Taiwan. There was competitive and urgent price competition in China, and the demand of paper for painting and calligraphy in Taiwan and Japan sharply decreased. In addition, Taiwan’s government didn’t put effort in education of painting and calligraphy (Lin, 2009). That’s another problem. All the papermaking factories in Puli were seeking the way to industrial transformation and attempting to open up a new path for this industry.

Tourism Factory in Taiwan

In Taiwan, there are a large number of traditional industrial areas which have developed for more than 20 years. All of them encountered the problem of outdated equipment, lack of vital functions and Industrial decline (Industrial Development Bureau, Ministry of Economic Affairs, 2010).

To fulfill the demand of industrial situation, Industrial Development Bureau of Ministry of Economic Affairs has promoted the counseling project since 2003, assisting distinguishing factories to set up tourism factories. Up to now, 130 factories have succeeded in industrial transformation.

In the Directions of Counseling and Evaluation of Tourism Factory of 2008 Industrial Development Bureau gave the definition of tourism factory that, with the tourism education and industrial value, factory which engaged in the manufacture and processing made its products, production process and factory space into touristic purpose.

By 2014, Industrial Development Bureau modified the definition of tourism factory in the Directions of Counseling and Evaluation of Tourism Factory.

With the industrial value, education value and local characteristic, factory which acquired factory registration and engaged in the manufacture and processing made its products, production process and factory space into touristy purpose. From the change of governmental norm, it is showed that perception of tourism factory gradually changed as well. It added the description of local characteristic which meant the emphasis and importance of local culture. In addition, the position of tourism factory modified from museum-like visit purpose into leisure use which is closer to people’s life.

METHODOLOGY

This section describes the methodology used to explore the relationship between culture conservation and regeneration, traditional papermaking industry and tourism factory. Research methods are introduced in the first section. The second section explains data collection, and the researcher presents the data analysis in the last section.
Research Method
To collect data of the research questions, the study employs the qualitative method. According to Steinar (1996), the qualitative research interview seeks to describe and understand the meanings of central themes in the life world of the subjects. In other words, interviews are particularly useful for getting the story behind a participant’s experiences. The interviewer can pursue in-depth information around the topic (McNamara, 1999).

Among qualitative methods, participant observation and interview are adopted in this study. Participant observation underlies much of the other techniques used in ethnographic fieldwork. It is a way of approaching the fieldwork experience, and gaining understanding of the most fundamental processes of social life (Musante & DeWalt, 2010). According to research property, participant observation is a good way to investigate the environment and atmosphere of targeted factory. Moreover, through participating in the experience activities, it is expected to gain deep perceptions. On the other hand, there are three types of interview, that is, structured interview, semistructured interview and unstructured interview. Considering the applicability and research topic, semistructured interview is more appropriate for the present study. The flexibility of semistructured interviews makes them so well suited to answering a why question. By changing the questions and the areas discussed during the interview we can address aspects that are important to individual participants, and by doing so we can gain a better understanding of the research question (Miles & Gilbert, 2005). Therefore, semi-structured interview is more flexible than structured interview which might place too much restrictions on interviewees, and it is also more organized than unstructured interview which might confuse interviewees or lose the concentration during the interview.

Data Collection
This section describes the procedure of data collection in this study. The very first step was to contact the Kwong Xi Paper Factory and then explain our research topic and interview purposes through official website, emails and Facebook messages. At the same time, go through all the information and data which could be found about Kwong Xi Paper Factory in order to get better understanding. Next, the interview for the study was conducted in the Kwong Xi Paper Factory on Sunday, November 29, 2015. After a guided tour of Kwong Xi Paper Factory, the face-to-face interview was conducted in Chinese and lasted for approximately sixty minutes about their perspectives and experiences of culture conservation, traditional papermaking industry and tourism factory. Furthermore, the researchers experienced the five-sense activities on-site. Eventually, the researchers accomplished the data collection procedure, and the data were transcribed and analyzed.

Data Analysis
After the data were collected, according to the research question, data analysis of this study was conducted from four perspectives. Firstly, the researchers figured out the major elements in culture conservation of traditional papermaking industries in Taiwan. The second section focused on the current difficulties and development tendency of traditional papermaking industry in Taiwan. Next, based on interviewees’ responses, it was categorized into a couple of key characteristics of tourism factory. Finally, the researchers assisted to answer the research questions on how to conserve and regenerate culture of traditional papermaking industry by developing tourism factory. All the audiotapes of the interviews were transcribed and categorized. The results were analyzed and presented.

RESULTS
This section explains the results based on qualitative data, participant observation and interview. In the following parts, three research questions are discussed respectively. Findings of participant observation and content of interview are arranged into graphics and text in-depth information. Brief comments are presented in the section that follows.

Key Characteristics of Tourism Factory
According to the Directions of Counseling and Evaluation of Tourism Factory, 2014 there are six dimensions in the evaluation of outstanding tourism factory, including characteristics, space, facility display, service quality, business model, enterprise responsibility and value. Firstly, in the characteristics phase, Kwong Xi Paper Factory dedicates in paper culture education and is eager to raise the awareness of daily-used paper because it is not only a piece of history of local culture but also a piece of memory of their beloved paper life. During the interview and the guide tour, their enthusiasm about paper culture was revealed in every sentence. It is mentioned in the interview that because Kwong Xi Paper Factory was inherited from the last generation, besides passion, they had considerably plenty of responsibilities. Therefore, what they want to preserve was truly beyond paper culture. It included the expectation of their father, the industry in their neighborhood and hometown. In the space and facility display phase, based on the participant observation, it is discovered that there are few indications on the way to Kwong Xi Paper Factory and illustration displaying
within the factory. They replied that Kwong Xi Paper Factory is located in a community. If we put up indications all the way, the community would be disturbed for sure. Hence, it is expected and encouraged that visitors park in the parking lot which is a little distance from here and to walk up to Kwong Xi Paper Factory. Next, about the display boards, it could be seen nowhere in the factory. They insisted in introducing the factory and paper culture to every visitor. Service quality phase was explored in the following section. If individual guided tour is replaced by display boards, there would be lack of something humane. So guided tour staff was important. After the training, they would fully know the process and history of papermaking and be taught to treat visitors sincerely as friends. With classification of guided tour, staff would share the information which was suitable for the visitors’ needs since some people came for leisure while some for professional purpose.

In the business model phase, the target group of Kwong Xi Paper Factory were in a wide range, from kindergarten kids to the elderly. Among them, schools were the most because Kwong Xi Paper Factory was education-oriented. Within the factory space, visitors feel it was far from the rush of commercial activities. It actually was a disadvantage for business but they believed good reputation was more important. As long as they dedicated to the papermaking industry, people would see the efforts and gather here for good causes.

In the phase of enterprise responsibility and value, Kwong Xi Paper Factory promoted one fan per person to save energy and to reduce carbon. It was what they insisted as their social responsibility. On the other hand, developing recycled paper which was made of agricultural litter was also their significant project. It might be not benefit-oriented but they were satisfied and contented for it was their enterprise responsibility and their contribution to Taiwan. In conclusion, these six dimensions are made to evaluate the industry development of a tourism factory. However, the critical point of whether a tourism factory can succeed depends on the enterprise position. As long as tourism factory clarifies attribute of its industry, it can go through the industrial transformation period and usher in a new era. Eventually, the origin of the attribute of an industry comes from its culture. In other words, if a tourism factory keeps its industrial culture in the first order when developing, it will not lose its culture and will lead to successful culture conservation.

**FIGURE 1**

*Culture Orientation and Conservation*

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**Tendency of Papermaking Industry**

According to in-depth interview, when it comes to tendency, Kwong Xi Paper Factory is keeping devotion to new application of paper culture. They hope to integrate paper culture into every dimension of daily life, such as food, clothing, accommodation, education, entertainment and agriculture. On the other hand, they also hope to carry on customized projects for innovative ideas. For example, several years ago, they cooperated with college students of National Taiwan University of Science and Technology, explored the possibility of edible
paper and made it into tea tablet. To them, innovation and creativity are essential to the future plan and tendency for traditional papermaking industry in Taiwan. At the same time, social responsibility is equally important. They are willing to put efforts in helping society and environment in order to make a better Taiwan. No matter for tradition or innovation, as long as the industry keeps proceeding, it is indeed a live factory.

<table>
<thead>
<tr>
<th>Category</th>
<th>Product</th>
<th>Description</th>
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<tbody>
<tr>
<td>Food</td>
<td>Cai Lun Paper</td>
<td>Kwong Xi Paper Factory has developed over fifty types of edible paper which is made of vegetable and fruits’ fiber. For instance, there are pineapple paper, chocolate paper, malt paper, Sunshine scallion paper, ginger paper and so on.</td>
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<tr>
<td>Clothing</td>
<td>Paper Cloth</td>
<td>Paper Cloth is made of fiber of mulberry tree bark, stacked up six to eight layers and added the persimmon juice as natural dye. It is light and good in water-resistance so that it can be washed and ironed. Up to now, paper cloth can be made into paper clothing, paper shoes, paper bags and various daily necessities.</td>
</tr>
<tr>
<td>Accommodation</td>
<td>Seed Paper</td>
<td>In the process of natural air-dry papermaking technique, add seeds, and after airing out, water the plantable paper and the seeds hidden in the paper will sprout.</td>
</tr>
<tr>
<td>Education</td>
<td>Paper Culture Education</td>
<td>Kwong Xi Paper Factory provides papermaking factory guided tour and shares the history and stories of papermaking industry. In addition, visitors can experience the papermaking process by themselves.</td>
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<tr>
<td>Entertainment</td>
<td>DIY Experience Activities</td>
<td>Kwong Xi Paper Factory provides a wide range of experience activities. For example, visitors can make their own paper going through all the processes and monotype. Moreover, the paper can be made into paper fan, paper lampshade or paper clock.</td>
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<tr>
<td>Agricultural Litter</td>
<td>Xifuxuan (Cherish Fortune Paper)</td>
<td>Xifuxuan (Cherish fortune paper) is made of water bamboo’s skin which is agricultural litter.</td>
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<td></td>
<td>Fengchunxuan (Meet Spring Paper)</td>
<td>Fengchunxuan (Meet spring paper) is made of stems of betel palm which is agricultural litter.</td>
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<td></td>
<td>Sugarcane Paper</td>
<td>Puli is suitable for growing sugarcanes. However, sugar canes are useless after juicing. Therefore, add the best fibers and the squeezed sugarcane can become recycled paper.</td>
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<td></td>
<td>Onion Peeling Paper</td>
<td>Pingtung is famous for its onions, but onion peelings are useless for Pingtung farmers’ association. Therefore, Kwong Xi Paper Factory makes good use of them as recycled paper. Since onion itself has strong spicy smell, onion peeling paper is insect-proof and corruption-proof.</td>
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<tr>
<td></td>
<td>Garlic Membrane Paper</td>
<td>Main place of origin of domestic garlic is in Yunlin. In the process, garilcs need to be removed from the membrane. However, the membranes are light and easy to fly away which cause a mess to the environment. Therefore, Yunlin farmers’ association cooperates with Kwong Xi Paper Factory. Finally, garlic membrane paper is successfully made. Moreover, it can be made into unique lampshade for sale.</td>
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<tr>
<td></td>
<td>Mile-a-minute Weed Paper</td>
<td>Adventitious plant, mile-a-minute weed, invades and destroys Taiwan’s eco-system. Adding its fiber of leaves and vines into the production of papermaking, strength of paper raises. Up to now, it is one of the good uses of mile-a-minute weed.</td>
</tr>
<tr>
<td></td>
<td>Firecracker Litter Paper</td>
<td>It is said that collecting firecracker litter of religious festivals brings good luck. Kwong Xi Paper Factory, therefore, gathers the firecracker litter of Beigang Matsu pilgrimage procession and makes it into firecracker litter paper which is unique and unmatched in Taiwan. It is not only promoting the Matsu belief culture but also integrating the relationship of religion, people and environment.</td>
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**Major Elements of Culture Conservation and Regeneration**

Based on interview data, there are two types of purpose to set up a tourism factory. One is to make money and the other is forced by the environment, which will lead to two different stories. Kwong Xi Paper Factory belongs to the latter. Compared with Kwong Xi Paper Factory, many current tourism factories are over-commercialized. If an industry always puts benefit in the first priority, the risk will go higher. The hot trend fades and the industry will decline as well. Therefore, root of the industry which is culture cannot disappear. Market is competitive and there are no big differences in the final products which are made by different factories. Therefore, humane value becomes important. According to the participant observation, papermaking workers were working in the tourism factory. Visitors kept passing by and they still focused on their job. In the in-
dustrial culture, these master workers are indeed part of it. It was a good demonstration of what a live culture is and humane value hiding behind the paper. To conserve culture, Kwong Xi Paper Factory seeks connection of humane value and products. It is mentioned that a piece of paper has not finished until humane values are added, which includes the work of masters, the culture of paper and so on. As a consequence, it sells not only products but also cultural inheritance. On the other hand, besides keeping the tradition, Kwong Xi Paper Factory also works hard on culture innovation which leads to culture redevelopment afterwards. In the past, the percentage of making paper and tourism was the same. In these two years, traditional papermaking industry went over the tourism and resulted in culture regeneration. In conclusion, culture conservation and regeneration are close to each other. The key point is that industrial culture should be live with time and space, and keep seeking the value to make it rich and developed.

**FIGURE 2**

*Industrial Culture Development*

**DISCUSSION AND CONCLUSION**

In this section, conclusions of this study are firstly provided. Next, it explains the implications of the study and limitation of current research. Finally, it gives out recommendations for future research.

**Conclusion**

The main purpose of the study was to investigate culture conservation and regeneration of traditional papermaking industries derived by tourism factory. With all the research findings, there are three major factors. First, cultural orientation is a key point for business model. The characteristic of a tourism factory is its industrial culture and stories. If cultural root disappears, the factory will barely become over-commercialized. The company will gradually lose its position and the upsurge will be also easy to fade away. Second, cultural value needs to be emphasized in final product. A piece of paper is not finished until adding humane values including respect of master workers, industrial stories and so on. As a consequence, it sells not only products but also passes down the culture of industries. Third, culture can be regenerated and evolved by cultural innovation. Time and space are always flowing and changing. So does culture. Only if we keep moving forward for the new and the different and always remember our original intention, culture will exist in industries all the time.

**IMPLICATIONS OF THE RESEARCH**

In the previous section, it is discussed that Hong (2006) emphasizes that conservation of intangible culture should focus on approval and respect for the production process which includes the grassroots working on, cultural continuity and cultural conservation. Chen (2005) mentions that cultural conservation is people-oriented and the key elements of exchange and understanding between people. Kwong Xi paper factory indeed corresponds to these statements. They try to keep all the el-
ments in the factory as usual, such as working spaces and master workers’ routine. Therefore, there are few illustrations displaying within the factory, and all the workers keep working on their jobs when visitors are walking around. That is the real life of papermaking factory.

In addition, they want to upgrade the status and raise the awareness and respect of the master workers. Without them, paper cannot be completed. They set up portraits of master workers on the walls of the factory, showing their professional aspect to raise the humane value. On the other hand, Hong (2006) mentions that when inheriting tradition, it should also link to modern life, giving meaning and creativity to the new era. Kwong Xi paper factory significantly performs well in this part. They integrate agriculture, litter issues, innovation and education into daily life. From plenty of perspectives of life, people can know paper culture and application.

In the end, they successfully conserve the traditional paper culture and also explore numerous areas for paper industry. Moreover, besides the elements in the previous discussion, Kwong Xi paper factory specially indicates that humane value should be emphasized in the final products. Since product selling is one of the important ways for tourism factory, they point out that without humane value, products have not been completed yet. As a result, they try hard on exploration and display of intangible value, and expect to keep a balance of cultural value and product selling.

LIMITATIONS OF CURRENT RESEARCH

In this study, there are some limitations needed to be noted as follows:

The first limitation is related to the participants. The researchers conducted only one interview with two owners of Kwong Xi Paper Factory so that it might lack opinion from different aspects. Next, this study adopted Kwong Xi Paper Factory as only case. It might not stand for all the papermaking industries in Taiwan.

RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the study findings in the present study, some suggestions for further research are given as follows:

Firstly, the number of the factories in the study can be increased. Through the comparison and integration, the results will be more comprehensive. Secondly, master workers, guided tour staff and visitors of different age and background can be interviewed since they are stakeholders of this study. Last but not the least, quantitative method can be adopted and to be referred to qualitative method.

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