FROCEEDING

Food Globalization: New Technology in An Era of Change



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Preface 10th NSC – "Food Globalization: New Technology in An Era of Change"

This is a proceeding of the 10th National Student Conference on Food Science and Technology done by Food Technology Department, Soegijapranata Catholic University. Seeing that this conference is organized by only the students of the faculty, ten consecutive years of performance deserves quite praise. Thanks to their powerful motivation and energy, this event can be held in routine without skipping a single year.

In this year conference we focused on the development of food in globalization era. As we know it, since globalization has begun there has been lots of changes in many sectors of life including food. On the bright side, it can be seen that globalization has made food become highly varied, more "functional", and somewhat safer by using new material, more sophisticated technology, or even change the food source's genetic structure. Although there are a lot of advantages in the era of food globalization, there will be many risks that make people have to be aware in consuming the foods.

The conference was specifically designed to discuss all of these matters, where students of food technology department can share their research and opinion. This proceeding covers two sections of paper that are papers of the keynote speakers and also from the presenters. There are six platform themes that were used: *Food Product Development*, *Food Quality and Safety, Food Management and Business, Food Engineering. Food Microbiology & Biotechnology* and *Functional Food*. With the ongoing changes in food related to the current globalization, I am quite sure there will be more topics that can be discussed in other student's conferences or academic communities.

Semarang, January 7, 2010

Alberta Rika Pratiwi Chairman of the Steering Committee

THE LANDSCAPE OF SOTO IN CENTRAL JAVA

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ABSTRACT

Many people say that Indonesia is 'heaven for good food lovers'. We can find many kinds of food from traditional snacks to international dishes. Indonesian foods reflect the vast variety of people that live on 6.000 populated islands of Indonesia. The most popular dish that originated from Indonesia was also easily to be found across most of Asian regions. One of Indonesian popular food was "soto", a common dish that can be found in any region of <u>Indonesia</u>, and it was likely every region use this type of cuisine as the food identity. In Central Java, "soto" has performed a unique characteristic of each region. The province which primarily composed of five different socio-cultural conditions, it has five kinds of "soto" as well. While we can find "soto" Betawi, "soto" Madura", "soto" Padang and other area of the Indonesia across the province, Central Java originally has five kinds of "soto"; "Soto" Semarangan, "Soto" Kudus, "Soto Yogya", "Soto" Sokaraja and "Soto" Pekalongan. The article compares the characteristics of these five kinds of "soto" with the geo-culture of the food region and the variation in "region border" were discussed.

Keywords: soto, landscape, Semarang, Kudus, Yogya, Sokaraja, Pekalongan, Central Java, ingredients

INTRODUCTION

Indonesian foods is perhaps less wellknown than its Asian counterparts in China, Japan or Thailand, but that does not mean it is not worthy international acclaim. In fact, Indonesian cuisine is so varied that travelers can be assured of finding at least one dish that becomes a lifelong favourite. The country's strategic and historic location astride the Asian and Pacific trade routes has resulted in mixture of influences evident in many aspects of Indonesian life and culture and particularly in the archipelago's culinary treassures.

Lovers of good food will never feel out of place in Indonesia. There are plenty of international dining options available here, from fine dining to fast food, particularly in larger cities like Jakarta and Yogyakarta, and those who have visited this country often insist that the Indonesian culinary experience is something you should not miss. Indonesian cuisine may be lesser-

known compared to its Asian counterparts from, say, China, Japan or Thailand, but its unique flavour combinations make it worth checking out. It's an exotic blend of several cultural influences and each region features its own version of the national favourites.

Soto, coto or sroto is one of the traditional foods melayu Indonesia, Malaysia & Singapore. Soto is a typical Indonesian food made from meat and vegetable soup. These foods can be said the soup, but soup is slightly different from Soto, the difference lies in its menu ingredients and soup or gravy over to his or oily soup, while the soup is more clear or translucent. In Indonesia, many types of Soto, in each different area, different from the name soto, soto material and its contents. The most commonly meat used are chicken and beef, though pigs and goats are also used in some regions. Various regions in Indonesia have their own kind of soto, with different content and taste. There are many varieties of Sotos in Indonesia, as different regions and ethnicities has their own way of preparing the cuisine. Various kinds of soup in Indonesia, among others: Soto Semarang, Soto Kudus, Soto Sokaraja and Soto Pekalongan. All of these sotos have distinctive flavor, made to fit their respective tastes.

Social and economic development during the last 3 decades, has brought a variety of result of the development of social diversity requires the diversity of its food culture. This paper raised the kinds of soto in Central Java, and analyzed with geographic sensitivity, so that can be find out the types of original soto at every region, so that can also be shown the locality excellence

METHOD

Our topic is soto. So after we decided our topic, we think the suitable method for our topic are The personal interview surveys and web surveys to get data for our research.

Personal Interview Surveys

Survey research is one of the most important areas of measurement in applied this research. The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents. Personal Interview surveys are information about soto used to find between respondent and interviewer. Survey efforts that would benefit most from a personal interview survey are those requiring a sample of respondents within a very specific target population. The survey effort will have a focus on capturing attitudinal behavior, and the ability to extensively probe respondents on their responses.

soto can be found in various regions, as a

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Web Surveys

Surveying via the Web is rapidly gaining popularity for data collection efforts focusing on segments of the Internet user population. Web surveys will go to Internet only. Use keyword searches in Google, which indexes PDF and text books publications. This method consists of:

- Keyword search
- To find topically relevant information from digital libraries, databases, or the web
- Good in most cases
- Browsing
- To sift through collections of potentially relevant text
- Good where there are many relevant books/articles, but only a few can be selected
- Chaining
- Tracking references and citations to find articles relevant to a topic
- Good where the topic is very small

Survey efforts that may benefit most from a Web survey are those requiring a sample of a specific Internet user population, with the ability to keep costs low and analyze data rapidly.

RESULTS AND DISCUSSION

'Soto', 'Sroto' or 'Coto' is an Indonesian cuisine mainly comprised of broth and vegetables. The meats that most commonly used are beef and chicken. It is usually accompanied by rice or compressed rice like ketupat and lontong. Sotos are differentiated by the ingredients in them, such as many complement stuff and toppings. But there are also specific kinds of regional sotos. There are many varieties of Sotos in Indonesia, as different regions in Central Java and ethnicities has their own way of preparing the cuisine, such as Semarang Residency (Semarang Soto), Pati Residency (Kudus Soto), Yogya Residency (Yogya Soto), Banyumas Residency (Sokaraja Soto), Pekalongan Residency (Pekalongan Soto). All of these sotos have distinctive taste, ingredients, viscosity of the soup, spices, complements stuff, toppings, sauce, and way to serve, made to fit their respective tastes.

Soto could be served with various toppings, such as crackers, chili sauce, peanut sauce, and others. And also with other additional such as pindang egg satay, noddle, shells satay, shrimp, lime, potato cake etc. Since the staple food of Indonesia is rice, soto is usually served with rice as the main menu. However, there are differences in using rice as the main menu . The soto which are served along with rice mixed in is for example Kudus Soto and Semarang soto. There are also soto which are served with lontong or cooked rice wrapped in banana leaves, for example Sokaraja soto and Pekalongan soto.

This research shows that Soto Semarang has a translucent soup, when one of Soto Kudus is rather turbid, and both of their taste tends to be savory. The soup of Soto Sokaraja is brown because of many spices and the taste tend to be sweet. Soto Pekalongan has a brown soup because of tauco. So the purpose of this research were to compare the characteristics which include taste, content, viscosity of soup and complement stuff among them.

Other ingredients of soto include soon alternatively spelled as sohun (rice vermicelli), bean sprouts and scallion. Soto spices include the following: shallot, garlic, turmeric root, galangal, ginger, salt and pepper. Soto can have a clear broth, a yellow transparent broth (coloured with turmeric) or a milky coconut-milk broth. Another way to classify sotos is by their regional style. Many metropolitan areas have their own regional soto versions:

- Semarang soto, a chicken soto spiced with candlenut and often eaten with sate kerang (cockles on a stick)
- Kudus soto, made with water buffalo meat due to local taboos of the consumption of beef.
- 3. Yogya soto, has sweet taste and low viscosity of soup.
- Pekalongan soto or tauto Pekalongan, spiced with tauco (a fermented miso-like bean paste).

5. Banyumas soto or sroto Banyumas, made special by its peanut sauce.

Central Java is one of the cultural centers in Indonesia, including the culture of food, and soto is one of the cultural richness of food. As in other countries, food is a system, whose existence is determined and determining diversity, the collective attitude of life, civilization and progress of its inhabitants. Soto has taken a significant role in the formation of local identity, development of areas of economic and demographic, as well as in tourism development, especially the culinary tour (Spillane, 1994). For example, soto Sokaraja is one of the mainstay tourism in Banyumas (Chusmeru dan Noegroho, 2009), soto Pekalongan as the mainstay of culinary tourism in Pekalongan municipality (Iswayanti, 2010), as well as various kind of soup offered in a variety culinary tour on developing cultural tourism in Surakarta (Permonika Suci, 2010).

Cultural diversity is increasingly complex because of the regional development efforts, particularly on the development of tourism industry (Kittler, and Sucher, 2008) and soto has always been one that relied on food culture. Culinary tourism has become a major icon in any tourism development program. The trend of globalization that swept the world during the last 20 years, has brought the world community's appetite became separate section of the tour (Murdoch and Miele, 2003).

Soto is food that is easy to prepare, fast to serve taste many variations, and it's cheap, has always been an important part in such a culinary tour. In most case, culinary tour of local food, takes the second place in the visitors tourism memory (Schaer and Strauch, 2006). Some suggest that food always become a common memory for most visitors, while the uniqueness of tourist attraction itself touching every visitor with its own perception (Allaire, 2004). However, because of the many variation of tastes of the tourists, then the provision of one type of soto, will not be sufficient to provide a diversity of tastes of visitors. As the consequence, in the region that develop tourism, the government will develop the diversity of the soto, as what happen in Solo Municipality, which facilitate various types of soto all over the country to run their food business there (Permonika Suci, 2010).

The results of both our field studies and literature showed that the soto has grown widely in each region of Central Java. These developments resulted in the changing in the use of raw materials as well as the seasoning of the soto. In some regions, it was therefore hard to find the original soto of the region. Adjustment of raw materials, auxiliary materials, and seasoning soup marketed with consumer demand is the reason for the formation of variations in these types of soto, since the market demand in Indonesian society on soto as a part of street food is fairly high (Guhardja, 1993; Hermina, 2004). These changes were in line with the high dynamics of demography in Indonesia, and especially Central Java, in term of economic, social, and cultural. However, public awareness of the origin and kind of soto in the area, as local food culture still remain intact until now.

This awareness is very important because as the cultural aspects of the locality of traditional food, in this case is soto, arranging the food embedding as a part of local cultural values (Schaer and Strauch, 2006). Based on social experiences in Europe (Brunori, 2006) and in the United States shows (Sonnino and Marsden, 2006) that every shift caused by social change, at some point will form a cycle, so back to the original culture. With retained awareness of food culture, especially this soto, the trend of globalization has reached saturation stage and back to the original culture, the people of Central Java will not lose its identity.

CONCLUSION

 Some new variations of soto have been developed in the border or each soto's region.

- There are five of kinds soto in Central Java, the differences lies in: taste, ingredients, viscosity of the soup, spices, complement stuffs, toppings, sauce and the way to serve.
- 3. Among the 5 kinds of soto appears wide range variation of new soto.
- 4. Although in its development, new variations in the use of raw materials, auxiliary materials as well as seasoning soup, the authenticity of these five kinds of soto still maintained
- Soto originality in each region and its development need to be maintained, because soto is one of the cultural elements of local culture

REFERENCES

Allaire G., 2004, "Quality in economics: a cognitive perspective". In: Harvey M., McMeekin A. and Warde A. (eds), Qualities of food. Manchester: Manchester University Press.

Brunori, G., 2006, "Post-rural processes in wealthy rural areas: hybrid networks and symbolic capital". In: Research in Rural Sociology and Development, Volume 12-Between the Local and the Global: Confronting Complexity in the Contemporary Agri-Food Sector, edited by Terry Marsden and Jonathan Murdoch. London: Macmillan

Chusmeru and A. Noegroho, 2009, Potensi Wisata Kuliner di Kabupaten Banyumas, Analisis Pariwisata, Vol. 9 (1): 87 – 92

Freedman, P. (Editor). 2007. Food: the History of Taste. California: University of California Press Goodman, D. and Dupuis, M., 2002, "Knowing food and growing food: beyond the production-consumption debate in the sociology of agriculture". Sociologia Ruralis, 42(1), pp.5-22.

Guhardja, Suprihatin, Siti Madanijah, Sri Wulandari, M Akbar, . 1993. The Role of Street Foods in Household Food Consumption: A Survey in Bogor.

Hermina, Nurfi Afriansyah, Tjetjep S. Hidayat dan Trintin T. Mudjianto, 2004. Dampak Pendidikan Gizi Melalui Guru di Sekolah Dasar Terhadap Pola Makan Murid dan Perilaku Gizi Orang Tua Murid di Pedesaan, Media Gizi & Keluarga, Juli, 28 (1).

Iswayanti, I.P., 2010, Analisis Pengaruh Kualitas Produk, Kualitas Layanan, Harga, dan Tempat Terhadap Keputusan Pembelian: Studi pada rumah makan "Soto Angkring Mas Boed" di Semarang, Skripsi Sarjana, Fak. Ekonomi, UNDIP Semarang

Kittler, Pamela Goyan and Kathryn Sucher. 2008. Food and culture. Belmont: Thomson Wadsworth.

Murdoch, J., and M. Miele, 2003, Culinary networks and cultural connections: a conventions perspective. In Geographies of Commodity Chains (eds.) A. Hughes and S. Reimer, London Pearson Education

Permonika Suci, S.D., 2010, Studi Deskriptif Kualitatif Tentang Kegiatan Komunikasi Pemasaran Dalam Promosi Kota Solo Sebagai Kota Budaya Oleh Dinas Kebudayaan dan Pariwisata, Skripsi Sarjana, Fak. Ilmu Sosial dan Ilmu Politik, UNS Surakarta

Schaer, B. and K.K. Strauch, 2006, "Regional embedding as a marketing strategy". In: Roep D. and Wiskerke H. (eds), Nourishing networks. Fourteen lessons about creating sustainable supply chains. Doetinchem: Agriboek

Sonnino, R. and T. Marsden, 2006, "Beyond the divide: rethinking

relationships between alternative and conventional food networks in USA", Journal of Economic Geography 6, pp. 181–199 Spillane, J.J, 1994. Pariwisata Indonesia Siasat Ekonomi dan Rekayasa Kebudayaan, Yogyakarta : Kanisius

Wilkins, John. 1996. Food In European Literature. Exeter: Intellect Books.

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