



**Takhrij and Syarah Hadith of Chemistry:  
Cashew Fruit Fermentation can Produce Alcohol**

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**Abstract**

The purpose of this research is to discuss the hadith of the Prophet SAW. about the relationship between khamr and alcohol in cashew fruit fermentation. This research method is qualitative through the takhrij and sharah hadith approaches with chemical analysis. The results and discussion of this study were the fermentation of cashew nuts reaching a level of 14.98% which has an intoxicating potential such as khamr. The conclusion of this research is takhrij and syarah hadith of the Prophet SAW. about the comparison of khamr and alcohol in fermented beverages from the perspective of the hadith with chemical analysis.

*Keywords: Chemistry, Hadith, Khamr, Syarah, Takhrij*

**Introduction**

Fermentation in general can be defined as the process of converting sugar into organic acids or alcohol. Alcohol is produced naturally from the fermentation process, most of which can be found in the form of beer, wine, spirits and so on (Santi, 2008). However, the presence of alcohol can also be found in processed food products such as kefir, yogurt and fruit juice drinks (Nurhadianty, Cahyani, Nirwana, & Dewi, 2018). In the process, the sugar in the fruit will be fermented by bacteria to produce alcohol (Santi, 2008). After researching, cashew nuts can produce alcohol with high enough levels. Drinks that contain alcohol when viewed from a religious perspective are classified as khamr (Alkohol & Minuman, 1993).

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Table 1. List of Rawi Sanad

No.	Rawi Sanad	Birth/Death		Country	Kunyah	Ulama's Comments		Circles
		B	D			-	+	
1	Abdullah bin 'Umar bin Al Khaththab bin Nufail		73 H.	Madinah	Abu 'Abdur Rahman			Shahabat
2	Nafi', maula Ibnu'Umar		117 H.	Madinah	Abu 'Abdullah		-Tsiqah -Tsiqah -Tsiqah -Tsiqah	Tabi'in ordinary people
3	Musa bin 'Uqbah bin Abi 'Ayyasy		114 H.	Madinah	Abu Muhammad		-Tsiqah -Tsiqah -Tsiqah -Tsiqah -Tsiqah -Tsiqah faqih -Tsiqah mufti	Tabi'in (see you friends)
4	Abdul Malik bin 'Abdul 'Aziz bin Juraij		150 H.	MarurRawdz	Abu Al Walid		-One of your skills -Mentioned in'ats tsiqaat -Tsiqah -Tsiqah faqih	Tabi'in (see you friends)
5	Rauh bin 'Ubadah bin Al 'Alaa'		205 H.	Bashrah	Abu Muhammad		-Shaduuq -Shalih -Tsiqah Tsiqahma'mun -Shaduuq -Tsiqah	Tabi'ut Tabi'in ordinary people
6	Ishaq bin Ibrahim bin Makhlad		238 H.	Himsh	Abu Ya'qub		-A Muslim priest -Ahadulaimmah -Mentioned in'ats tsiqaat -Tsiqathafidz mujtahid -Priest	Tabi'ulAtba' Old People

No.	Rawi Sanad	Birth/Death		Country	Kunyah	Ulama's Comments		Circles
		B	D			-	+	
7	Imam Muslim	20 4 H.	26 1 H.	Naisaburi			Imam fi al-hadist	Mudawin

Table 1 is a list of the hadith narrators and sanad under study. Rawi is the narrator of hadith while sanad is the chain of narrators from friends to mudawin, namely scholars who record hadiths in the hadith book (Soetari, 1994). According to the science of hadith, the requirement for a valid hadith is that the rawi must be positive according to the comments of the scholars. If there is a comment from a scholar who gives a negative assessment to one of the narrators in the sanad lane, then the hadith is a dhaif hadith (Darmalaksana, 2020d). The sahih hadith are strong traditions while the dhaif traditions are weak traditions (Soetari, 1994).

Requirements for authentic hadith must also be continued. If the hadith sanad is broken, then the hadith is a dhaif hadith. The proof of continuity is meeting between teacher and student. If there is no objective evidence, the encounter between teacher and pupil can be seen from birth and death. If there is no data on births and deaths, it is predicted that the average age of scholars is around 70-90 years. The meeting of teachers and students can also be seen from the narrator's life journey. If the teacher and student are in the same place, it is predicted that the teacher and student will meet (Darmalaksana, 2020d).

The quality of this hadith is authentic. Because, from the side of the narrator, there were no comments from scholars who gave negative assessments. Also from the sanad side, it is connected from friend to homecoming. Basically the science of hadith has another parameter in providing reinforcement to hadith. Among other things, hadiths are called mut Worries in a very popular sense if the hadiths being researched are scattered in several hadith books (Soetari, 2015). The distribution of this hadith acts as martyr and mutabi. Syahid is another similar hadith while mutabi is another sanad (Darmalaksana, 2020d). The rest, as far as hadith is the virtue of Islamic practice, it can be argued even though its status is dhaif (Darmalaksana et al., 2017).

The scholars have given syarah, namely an explanation of the content and meaning of the hadith (Darmalaksana, 2020c). According to the viewpoint of the khamr scholars who have been mentioned in the hadith quotation is a form of prohibition to consume it. Not only about consuming, but even for financial gain such as producing, distributing, selling, and buying, this is prohibited in religion (Risna, 2017).

Based on the ijma of the scholars, 'illat (cause) is forbidden because of its intoxicating nature, not because of its alcohol content. This prohibition originated from the habit of Arabs who are negligent of time and feelings (awareness) (Risna, 2017). So that comes

down to the prohibition of drinking khamr. To clarify, the Indonesian Ulema Council issued a fatwa that consuming drinks containing alcohol with a content of > 1% is haram, because it has the potential to become intoxicating. If intoxicating means it is included in the khamr category (Maiti & Bidinger, 1981).

This hadith can also be explained in terms of chemistry. Alcohol can be interpreted in two senses, the first alcoholic drink and the second ethanol. In this type of chemical compound, alcohol has the general formula  $C_nH_{2n+2}O$  (Risna, 2017). Alcohol is very commonly used in the manufacture of liquor. Its component in liquor is the second largest after water (Nida & Prabawati, n.d.). Until now, the use of alcohol in beverages is increasingly diverse, especially in fermented drinks.

The fermentation process is a process that produces alcohol. Where a biochemical catalyst is involved resulting in a chemical change. Alcohol is produced from the process of breaking down sugar into ethyl alcohol and  $CO_2$ . The alcohol content produced in the fermentation process will increase along with the remaining sugar components. In this case, the fermented drink from cashew fruit can produce high levels of alcohol. The alcohol content increases during the fermentation process. Within 60 hours, the sugar in cashews can be fermented into alcohol, up to a level of 9.3% (Santi, 2008). In addition to the sugar component, temperature and conditions also support the process of forming alcohol. For continued conditions, the alcohol content will continue to increase (Hasanah et al., 2013). Although insignificant, the levels could increase up to a maximum limit of 14.98% (Santi, 2008).

## **Conclusion**

Khamr certainly contains alcohol but alcohol is not necessarily khamr. In general, fermented drinks have the law of haram if they have the same illat as khamr, which is intoxicating the fermented cashew fruit drinks that contain alcohol is haram. The reason is, the longer the fermentation the alcohol content will increase until it reaches a level of 14.98% which has the potential for intoxicating such as khamr. Research is expected to have benefits for the general public. It is admitted that this research has limitations, namely simple takhrij and sharah hadith, so that it requires more adequate follow-up research through chemistry. This study recommends the development of sharah hadith from the chemical field.

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